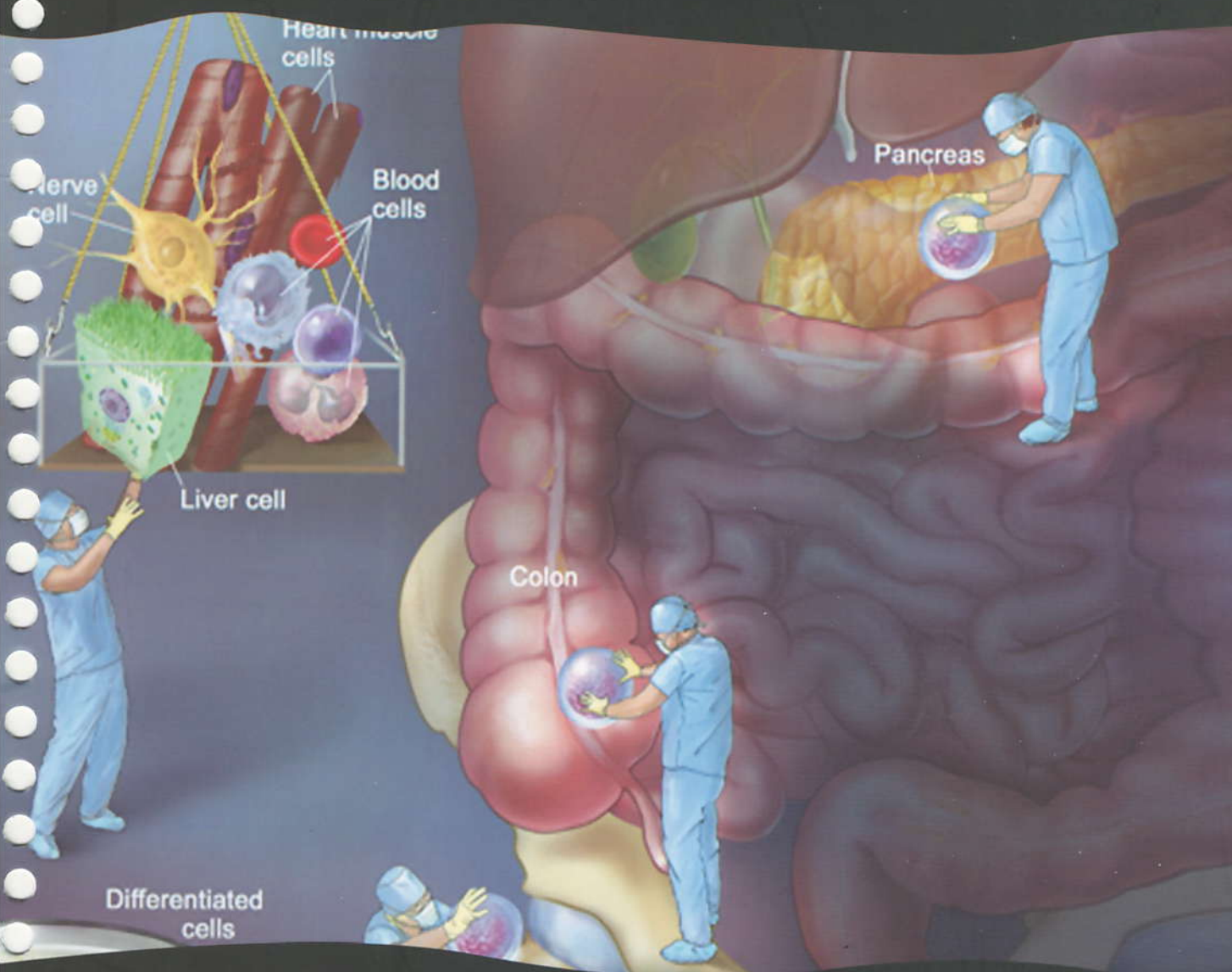


Matary Atlas of **GASTROINTESTINAL SURGERY**

Mohammed El-Matary



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Preface

This book provides an update for medical students who need to keep abreast of recent developments. I hope also it will be useful for those preparing for postgraduate examination.

This book is designed to provide a concise summary of GIT surgery, in form of slides, jars, specimens & radiographs.

The author is extremely grateful to all the contributors for the high standard of the new chapters, and hopes that you, the reader, will enjoy going through these pages as much as he had.

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Preface

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M. El-Matary

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Dr. Mohamed Mohy
Cairo University

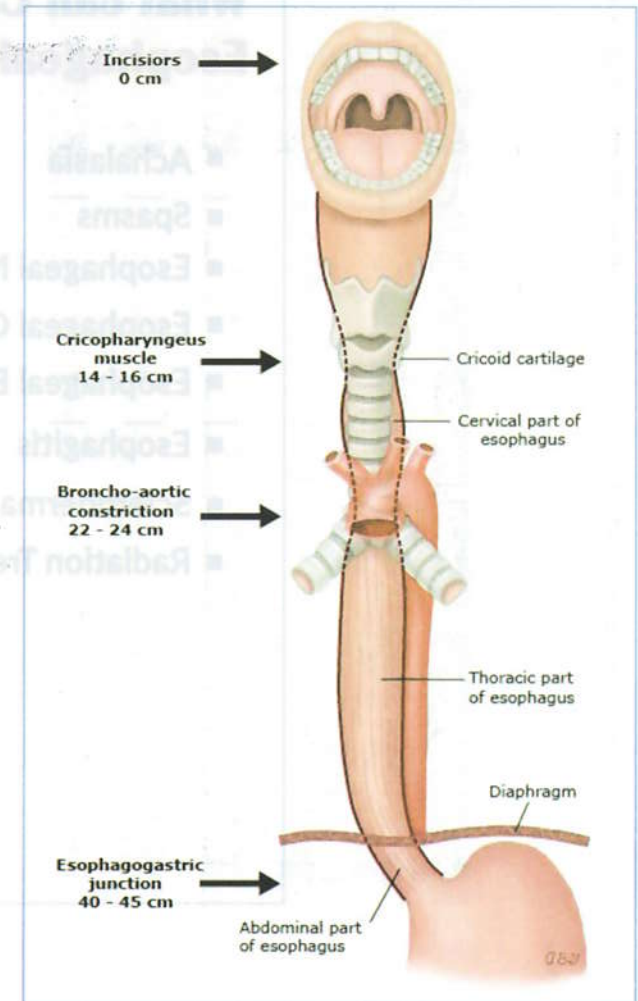
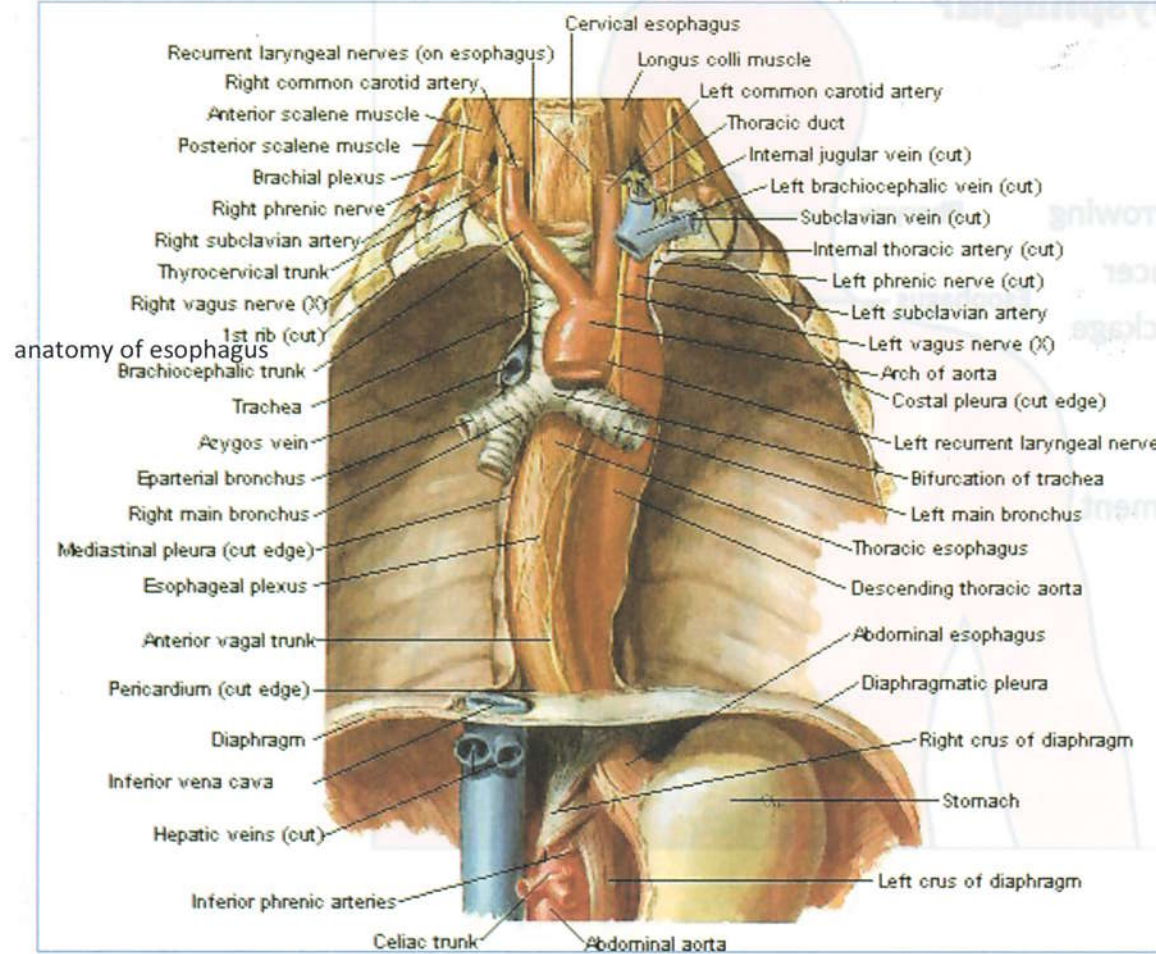
Dr. Kareem Mohamed
Ain shams university

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1. Esophagus	1
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Esophagus

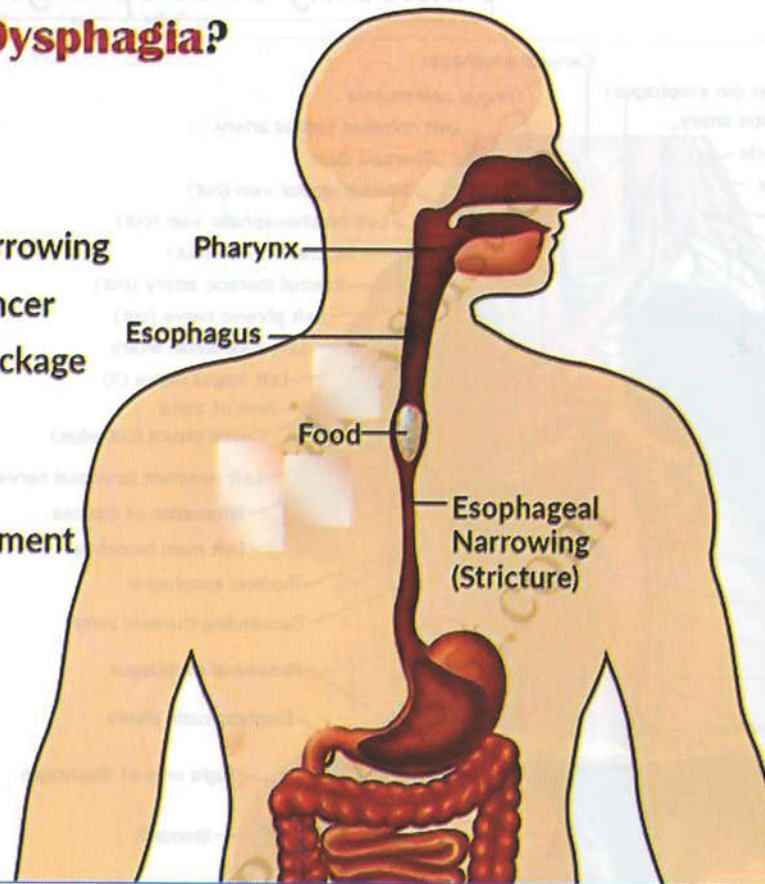
Anatomy of esophagus



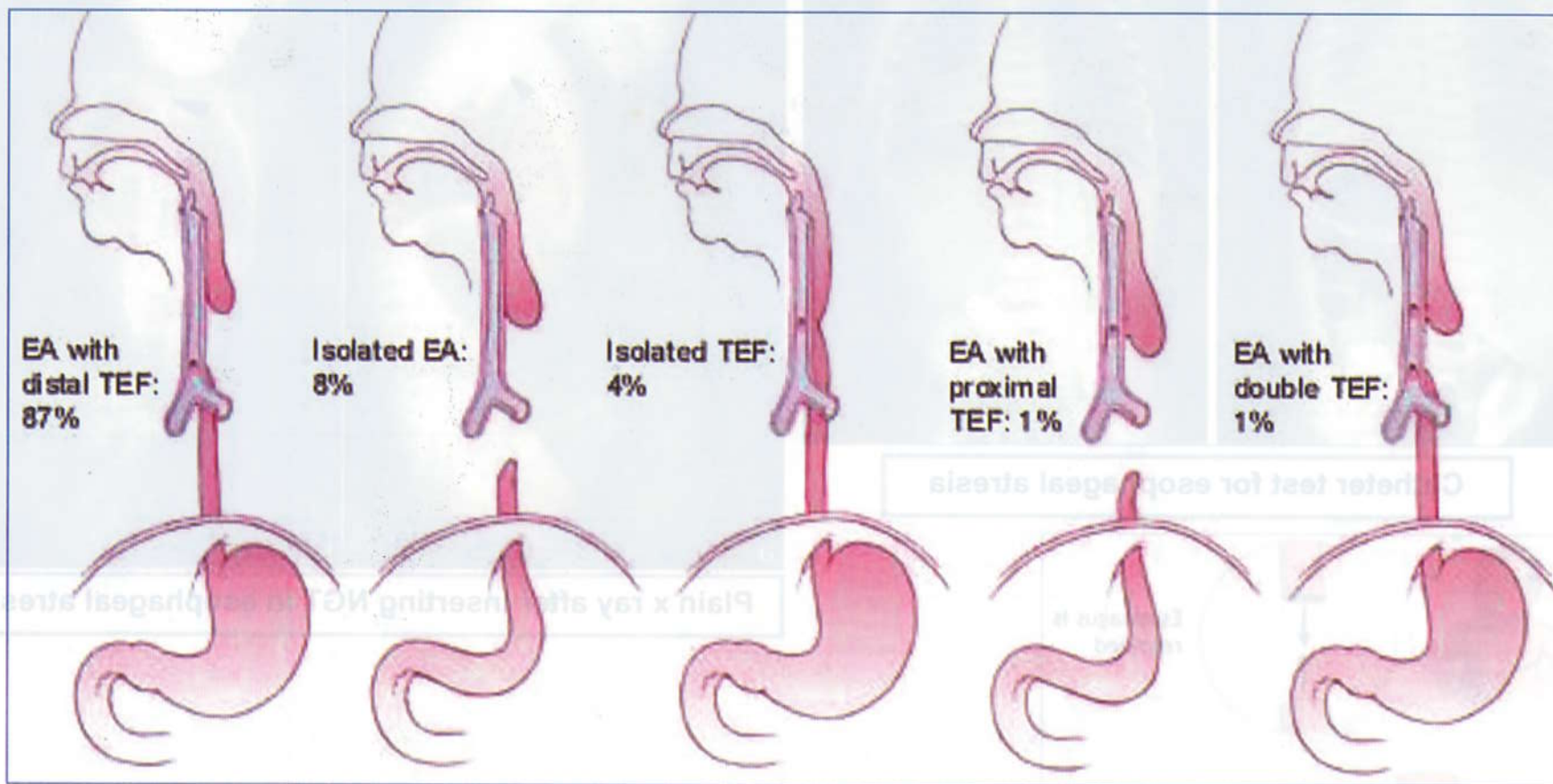
DYSPHAGIA

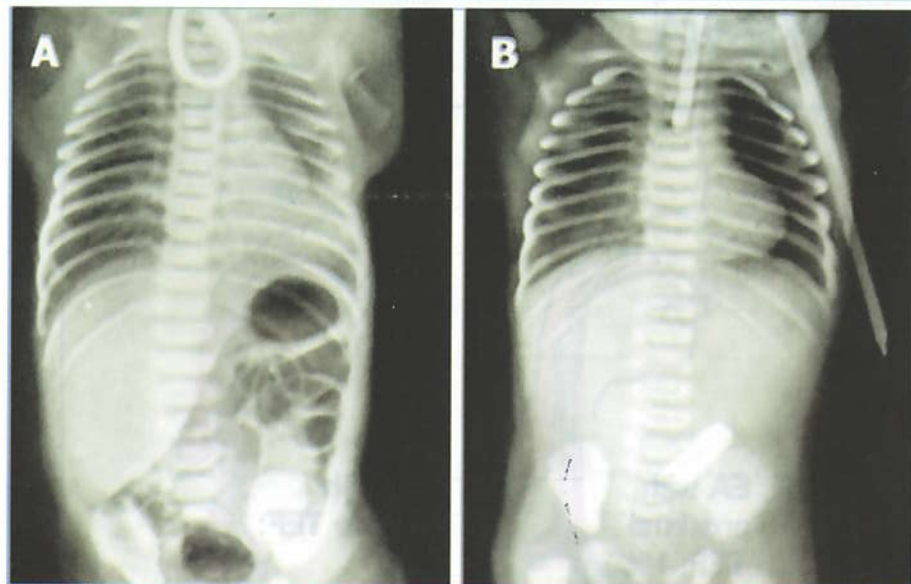
What can Cause Esophageal Dysphagia?

- Achalasia
- Spasms
- Esophageal Narrowing
- Esophageal Cancer
- Esophageal Blockage
- Esophagitis
- Scleroderma
- Radiation Treatment

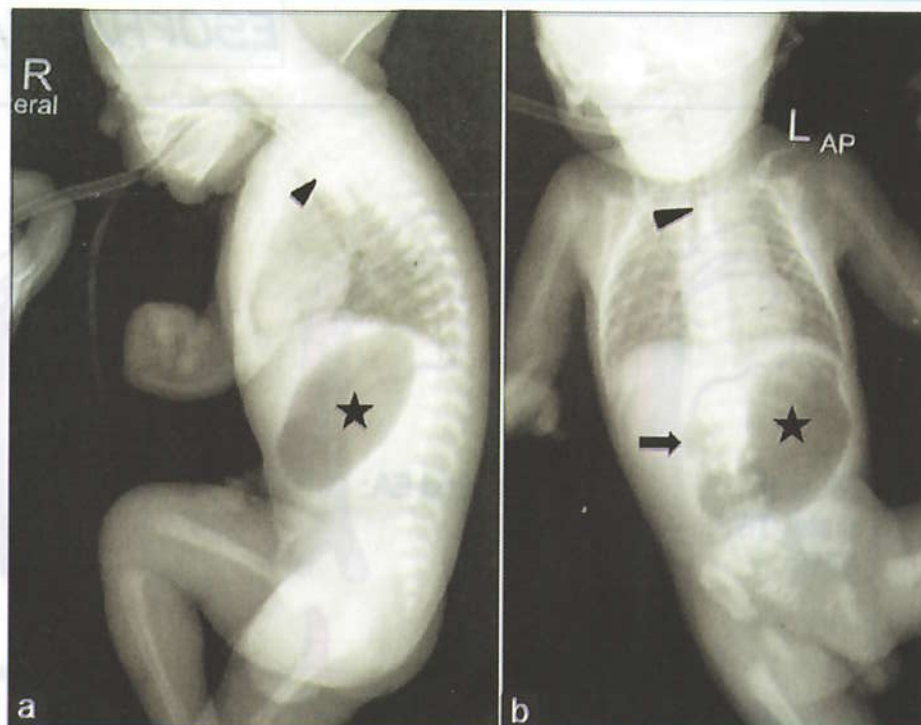


ESOPHAGEAL ATRESIA

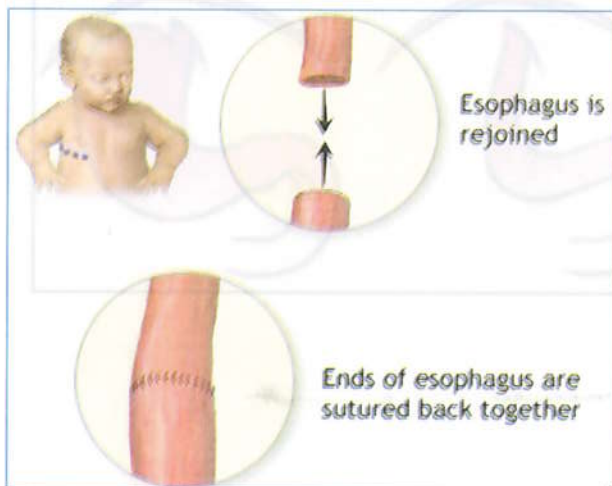




Catheter test for esophageal atresia

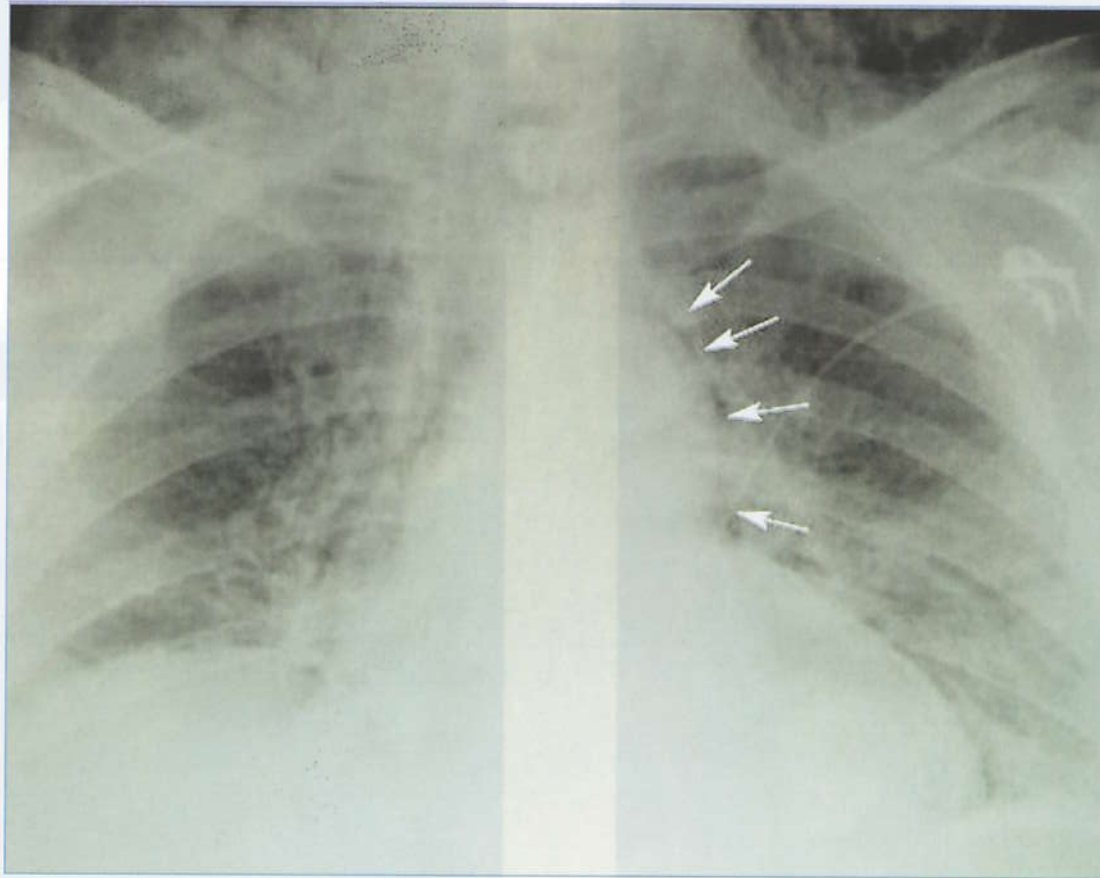


Plain x ray after inserting NGT in esophageal atresia



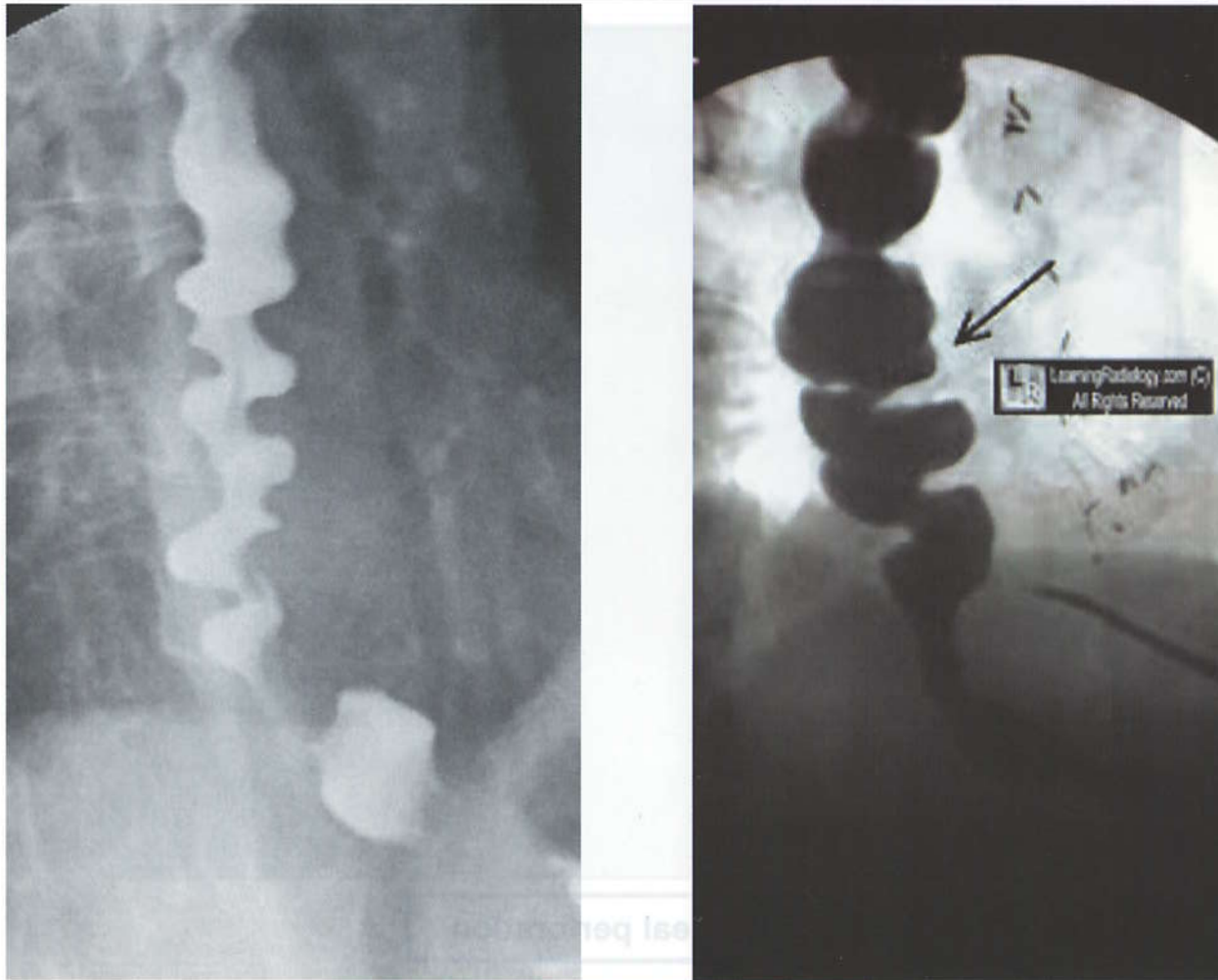
Surgery of esophageal atresia

ESOPHAGEAL PERFORATION



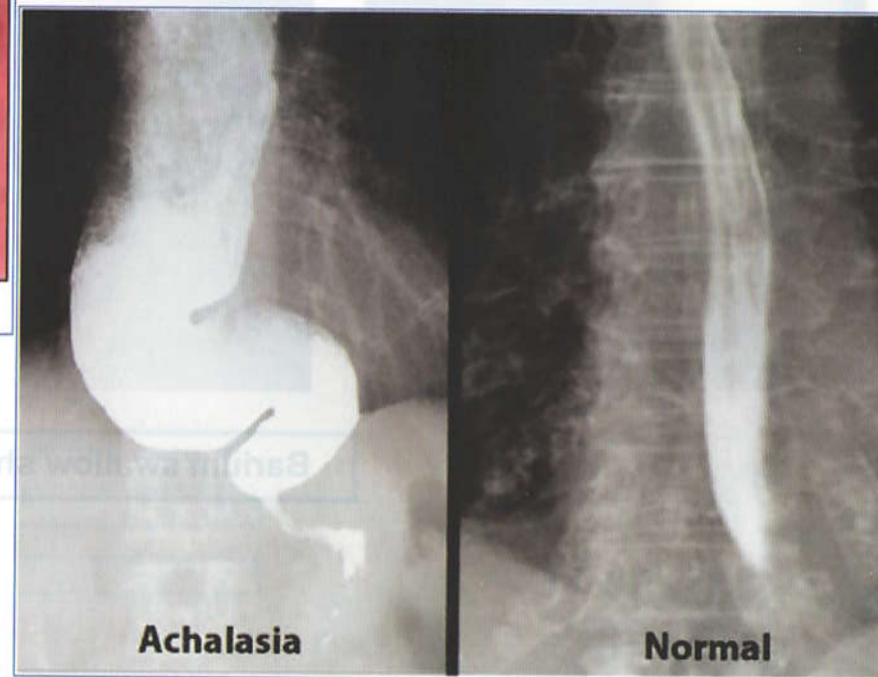
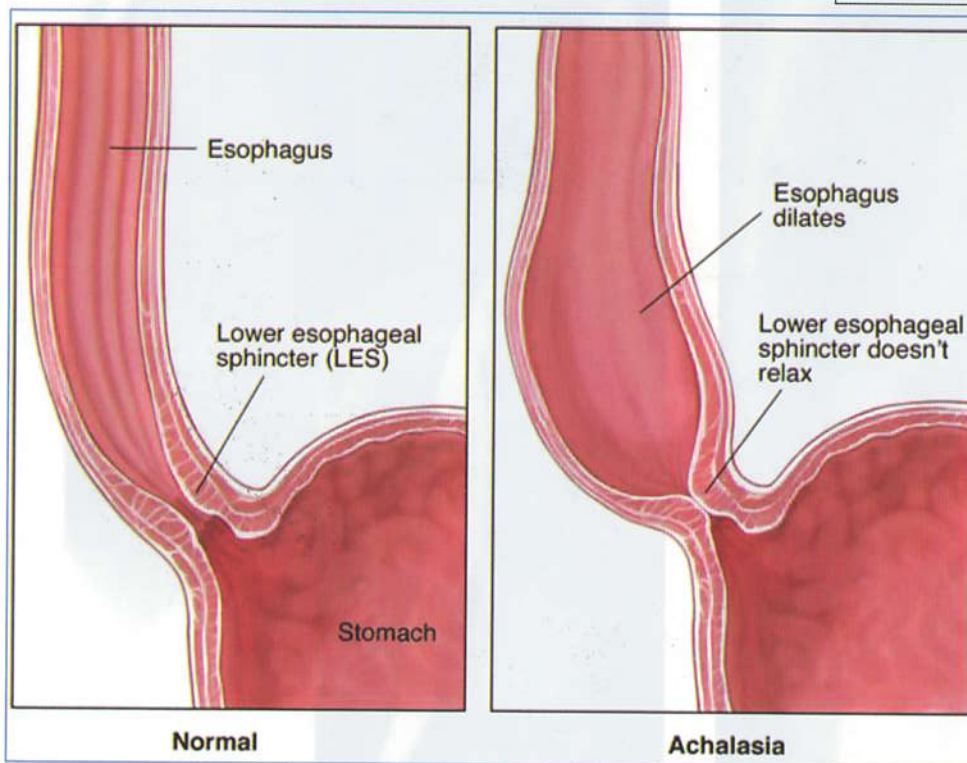
X- ray esophageal perforation

Neuromuscular abnormalities of the esophagus



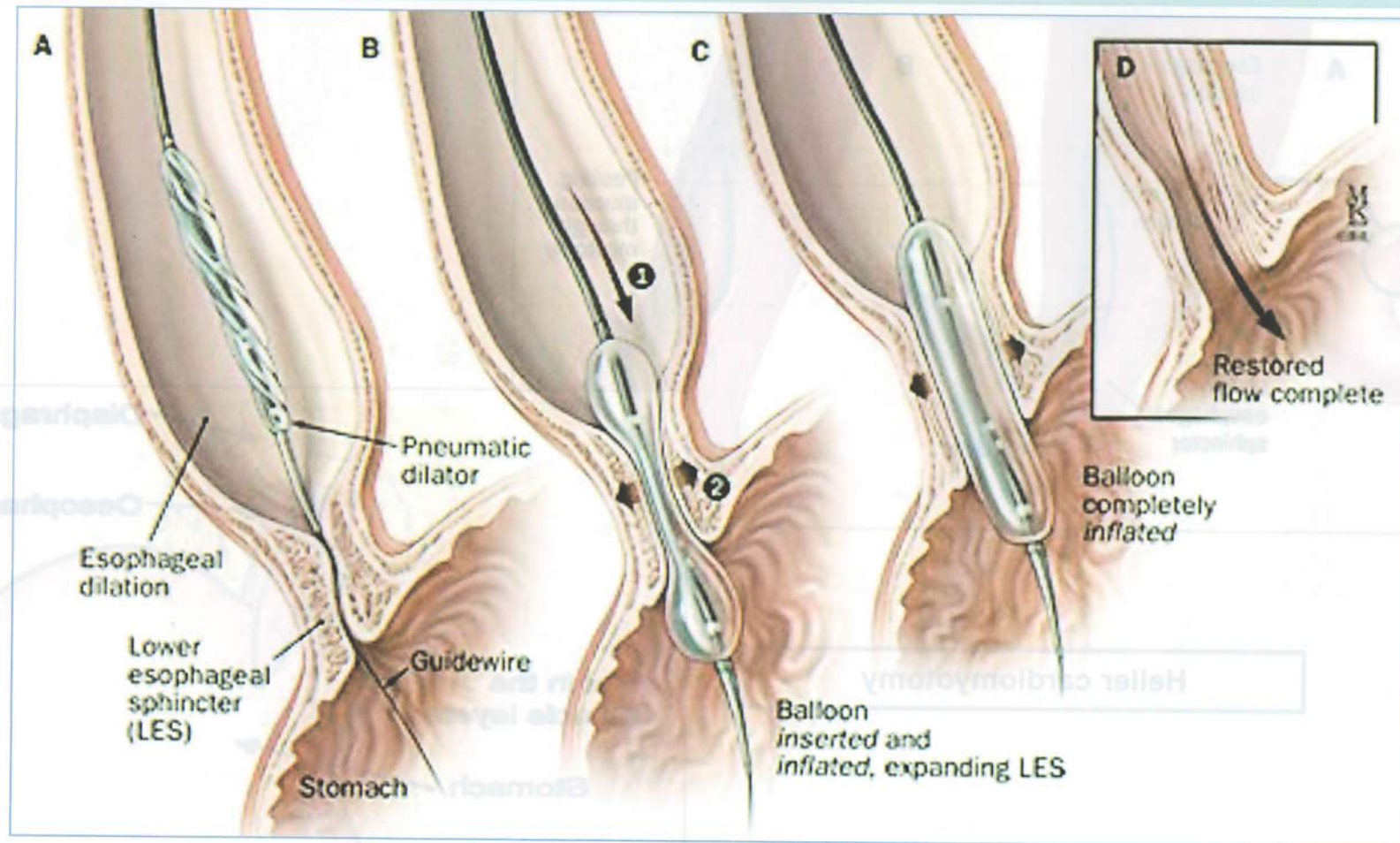
Diffuse esophageal spasm

Achalasia

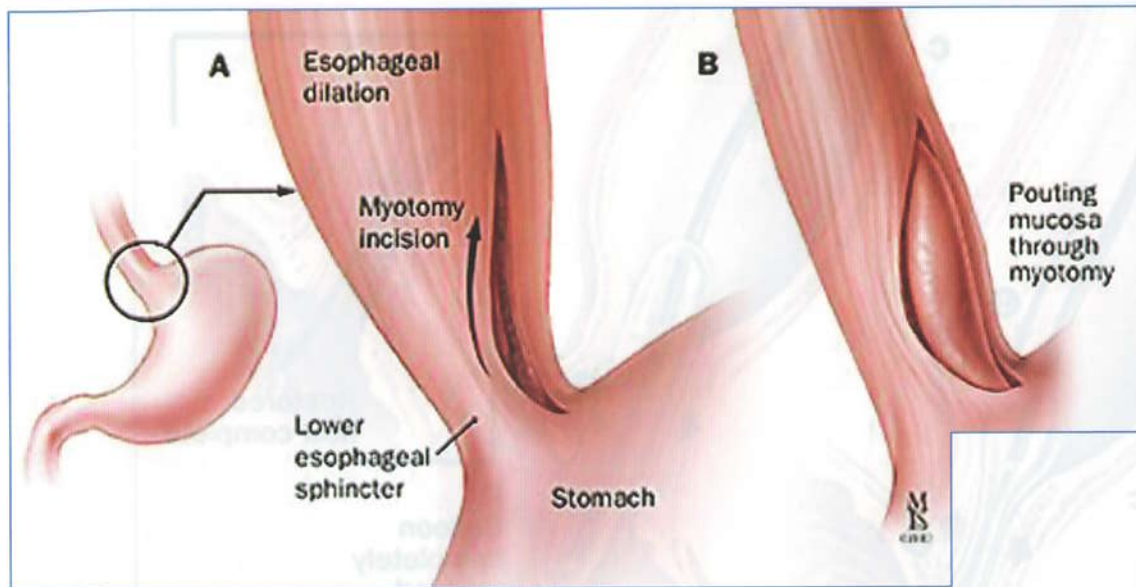




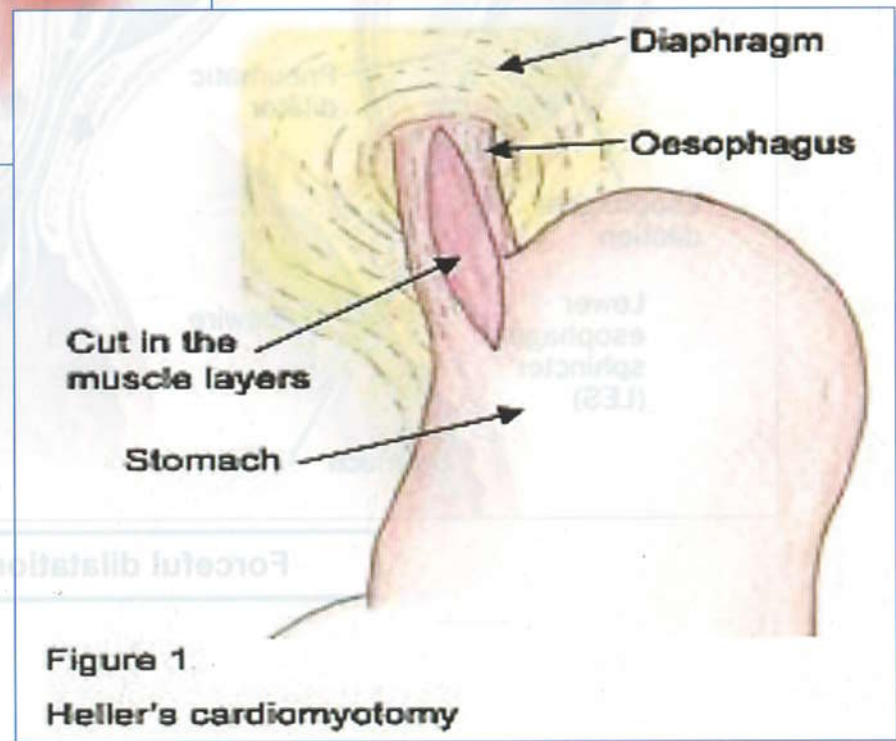
Barium swallow showing achalsia



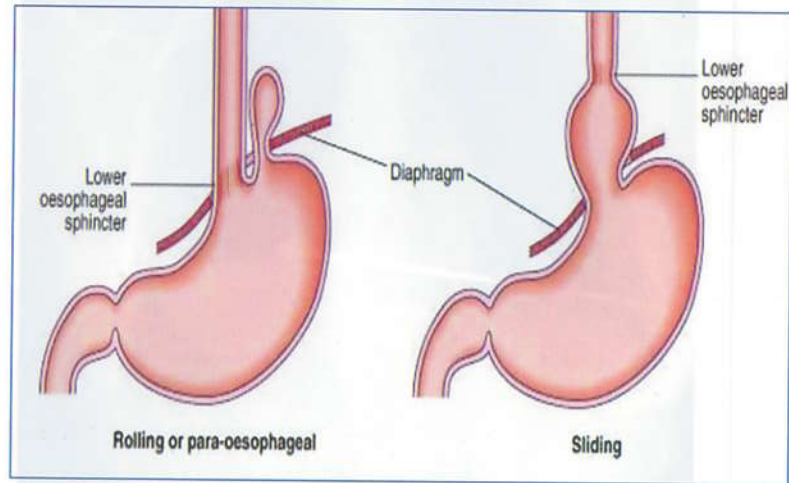
Forceful dilatation of cardia



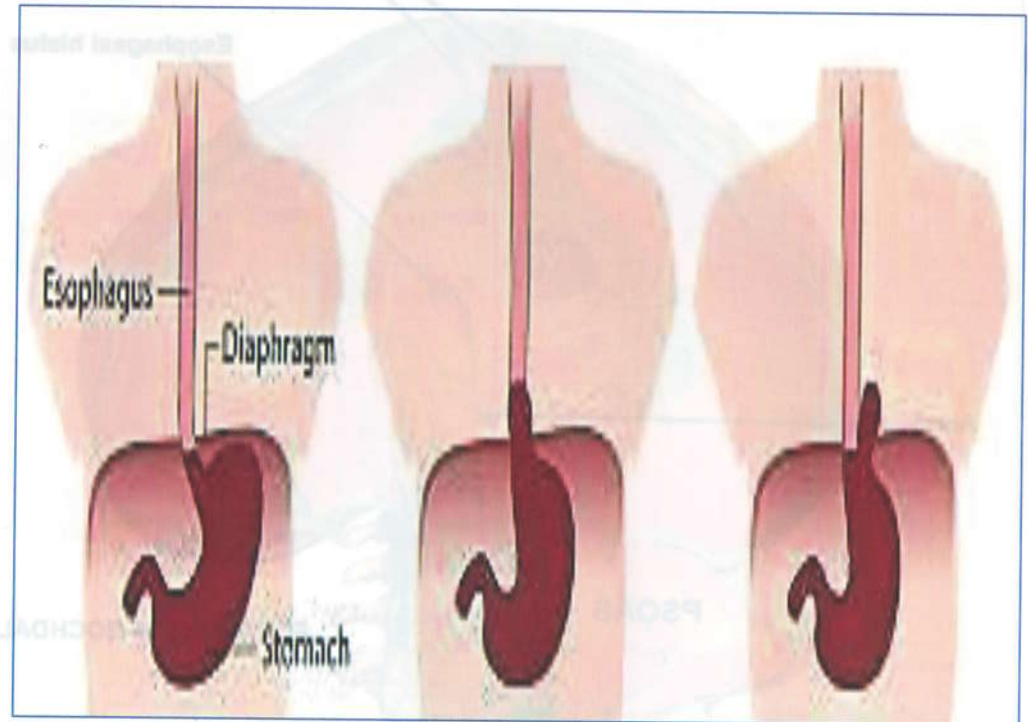
Heller cardiomyotomy



Esophageal hernias



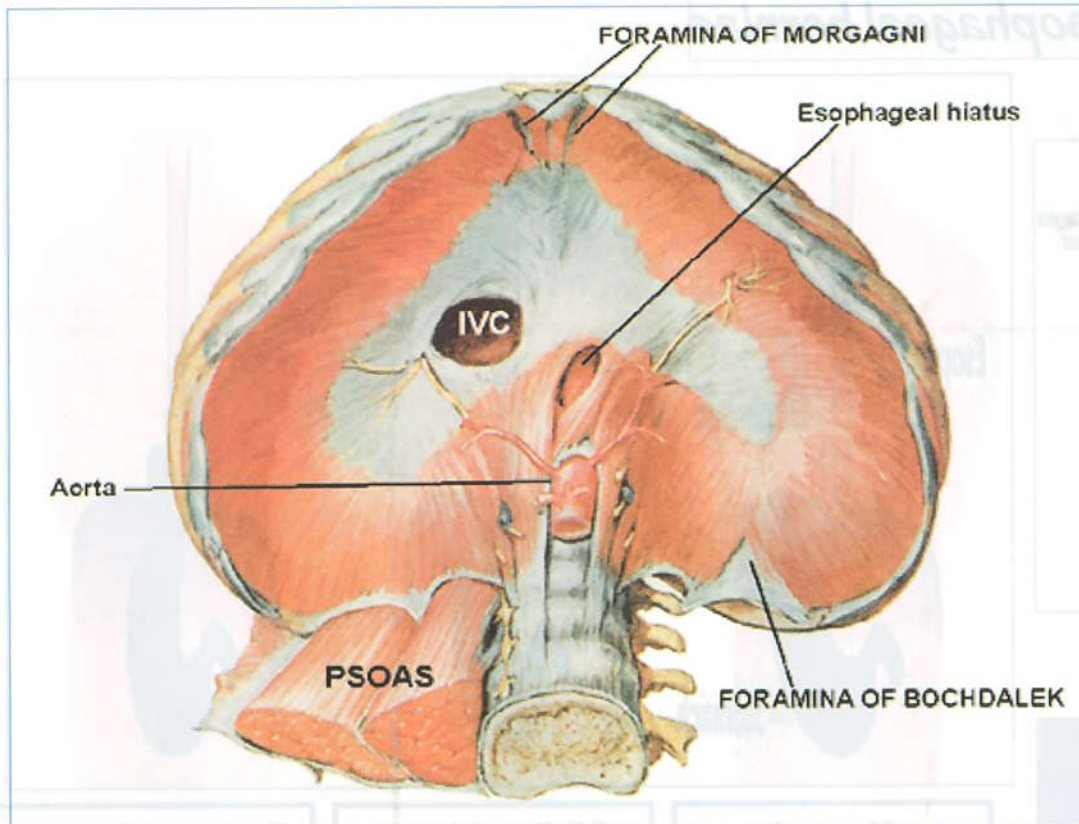
Types of esophageal hernia



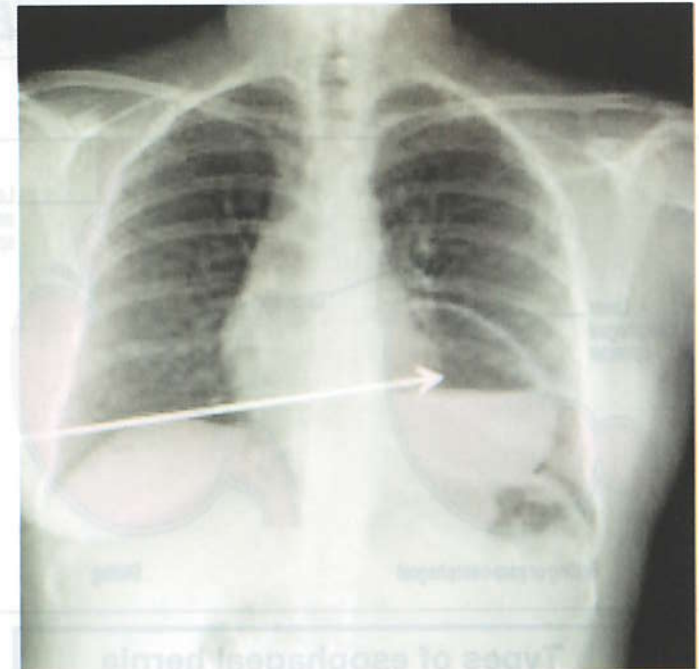
Normal

Sliding hiatus
hernia

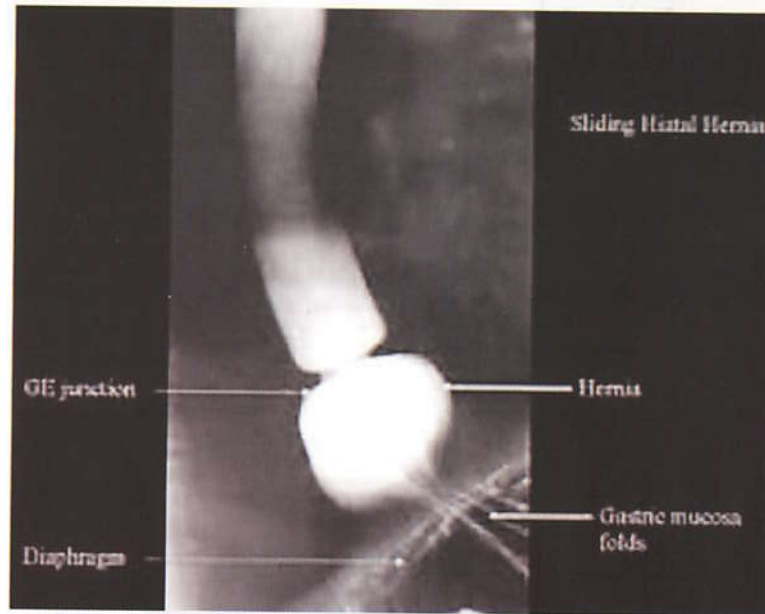
Paraesophageal
hiatus hernia



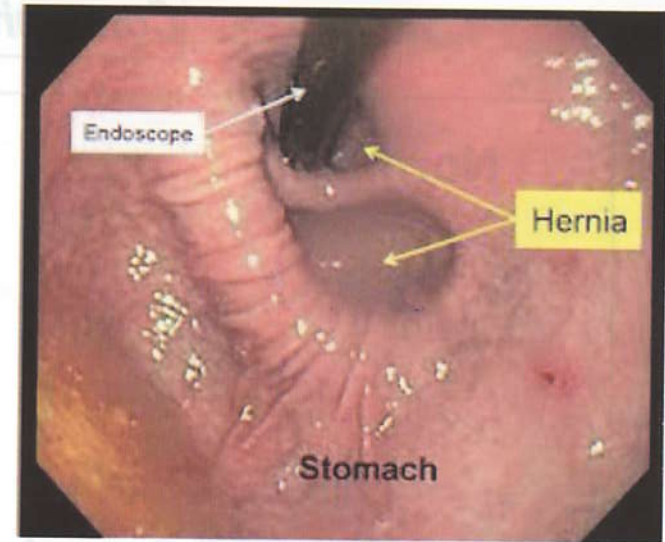
Inferior view of diaphragm



Plain X-ray showing
Esophageal hernia

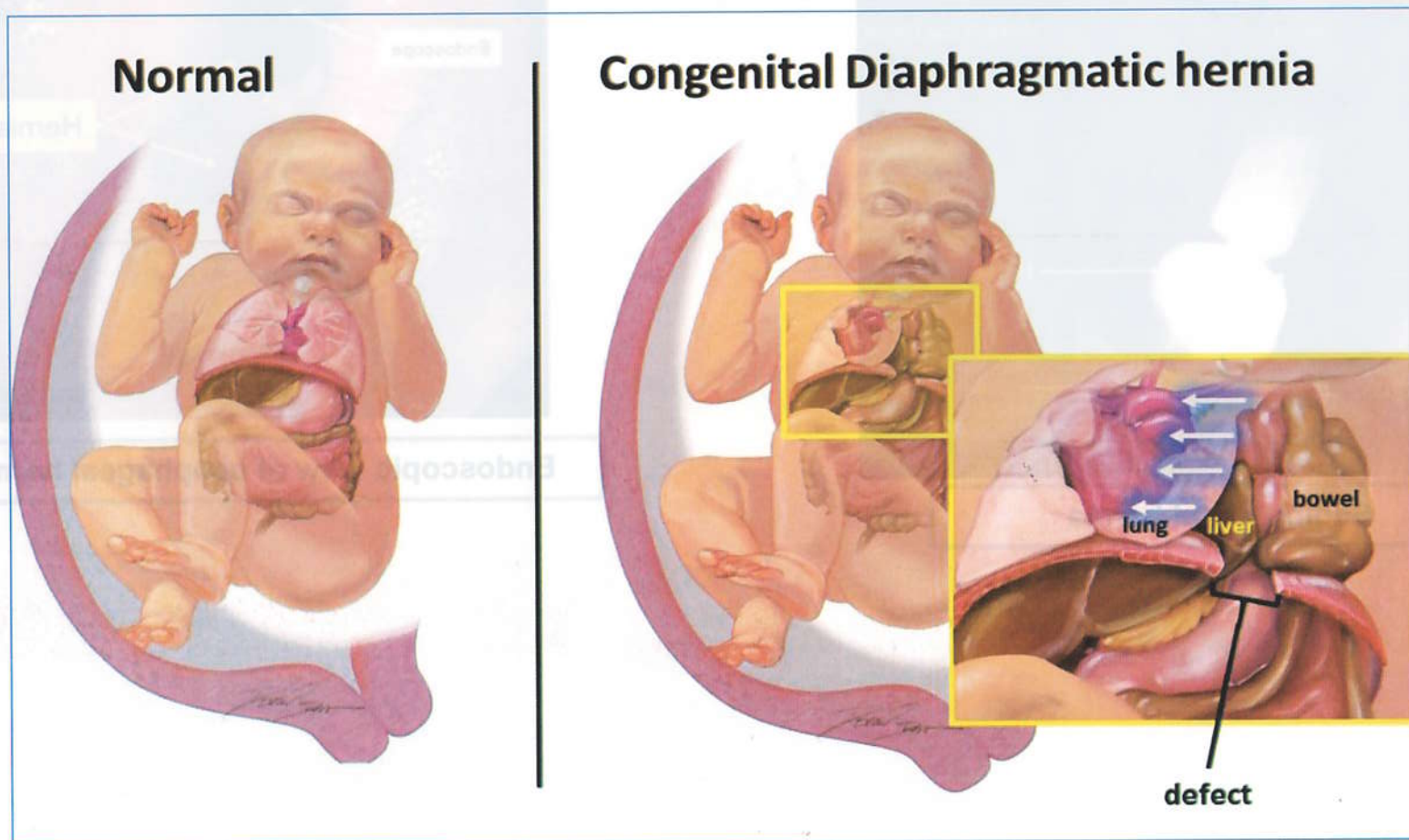


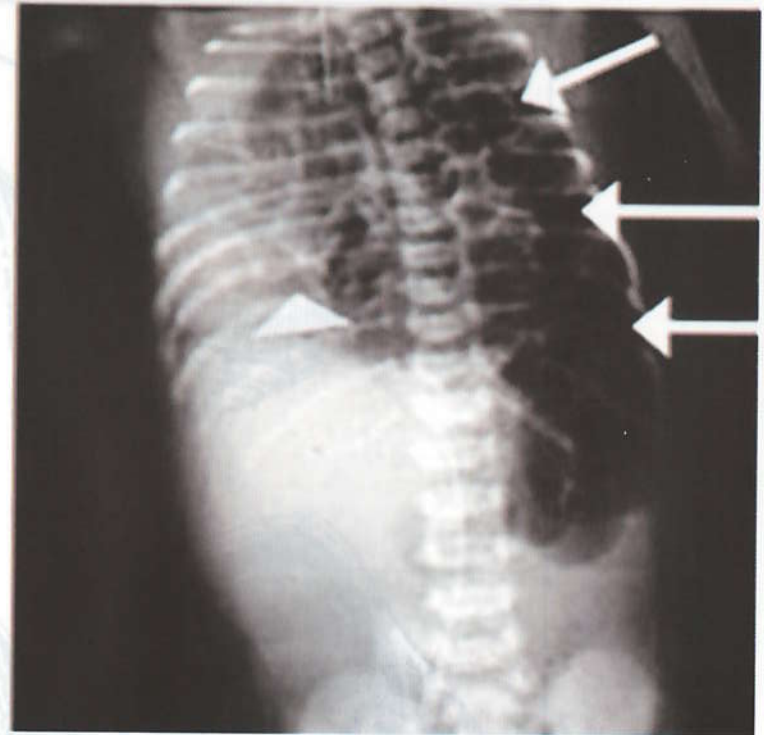
Sliding hiatal hernia



Endoscopic view of esophageal hernia

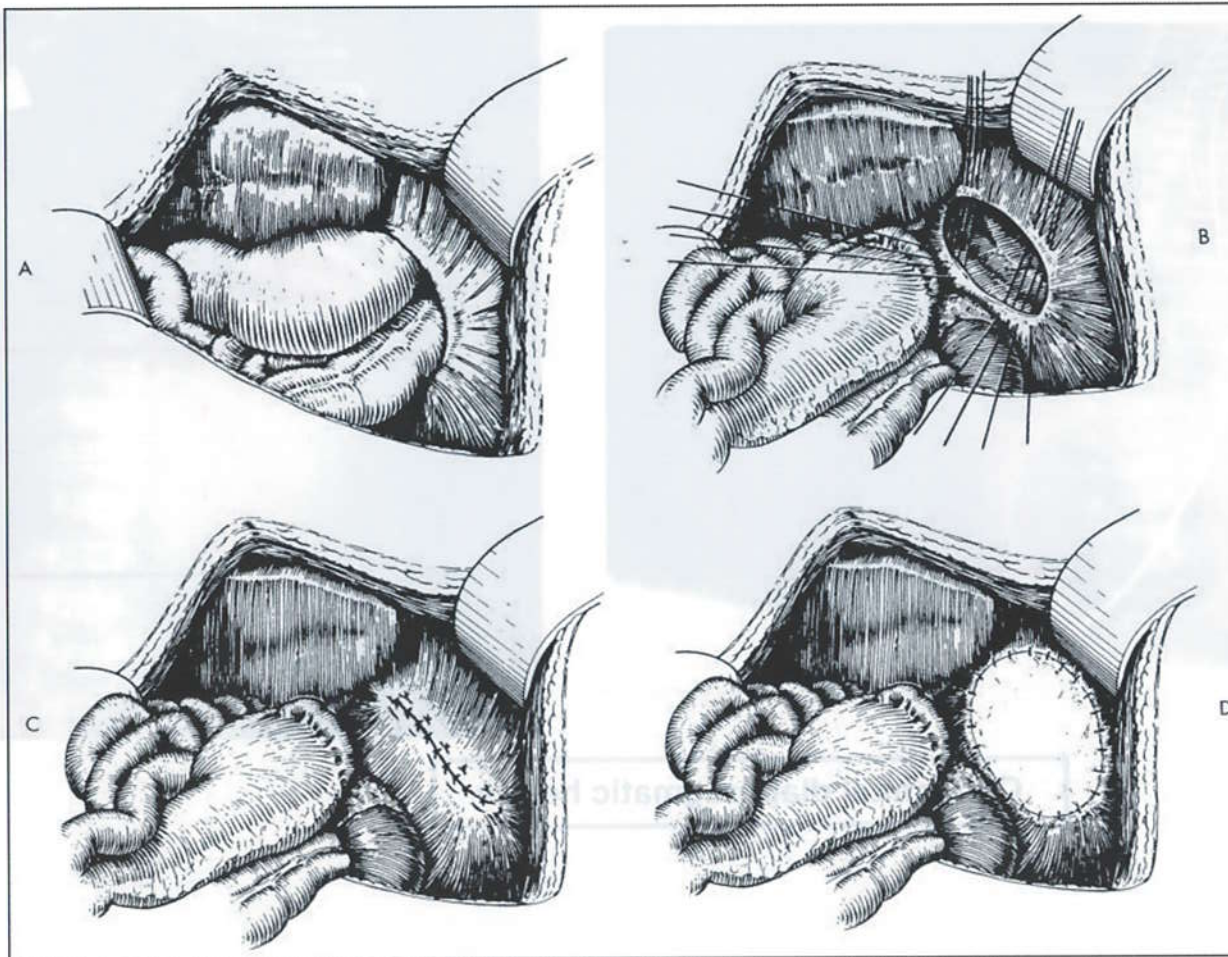
Congenital diaphragmatic hernia





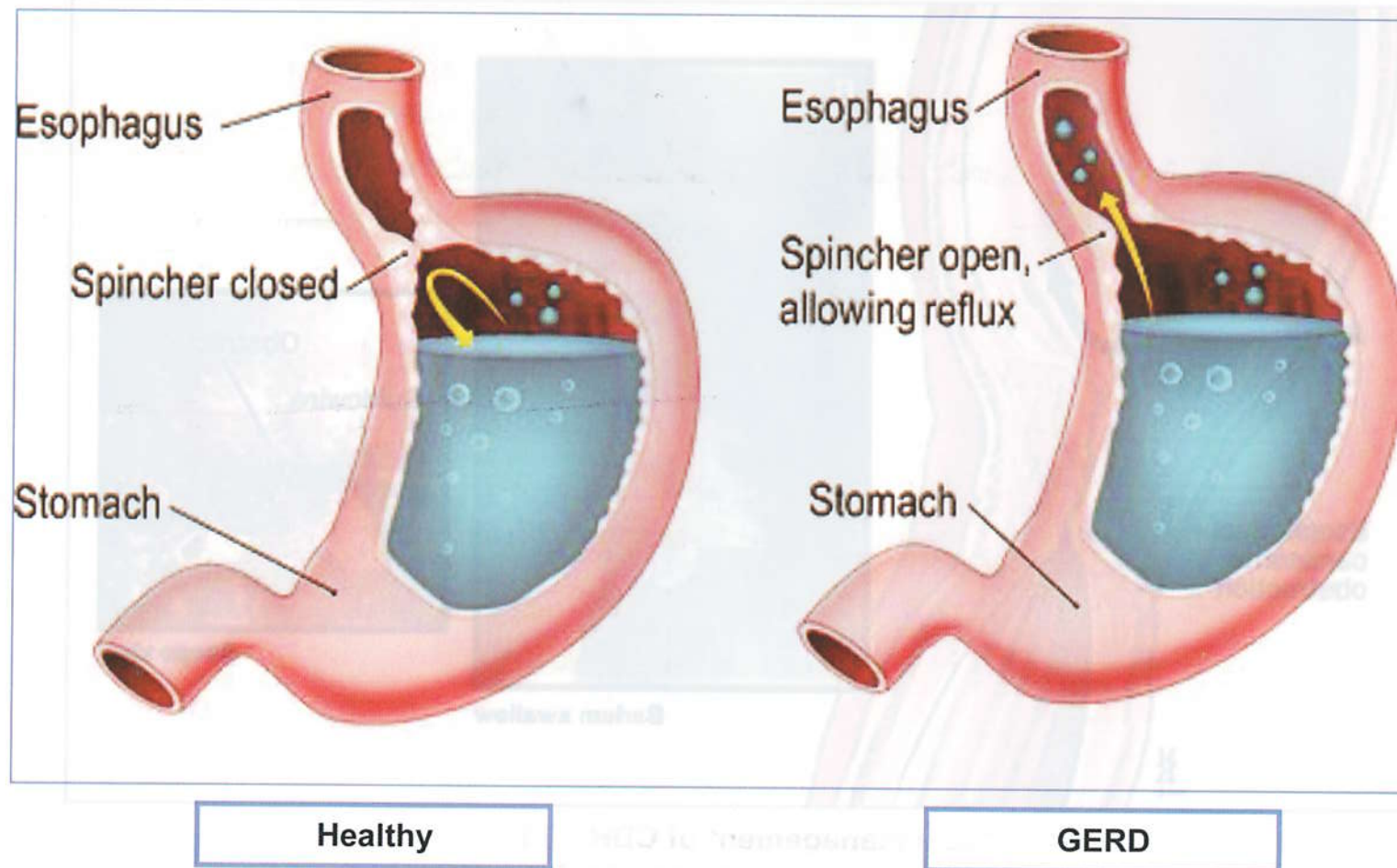
Congenital diaphragmatic hernia

Surgical management of CDH

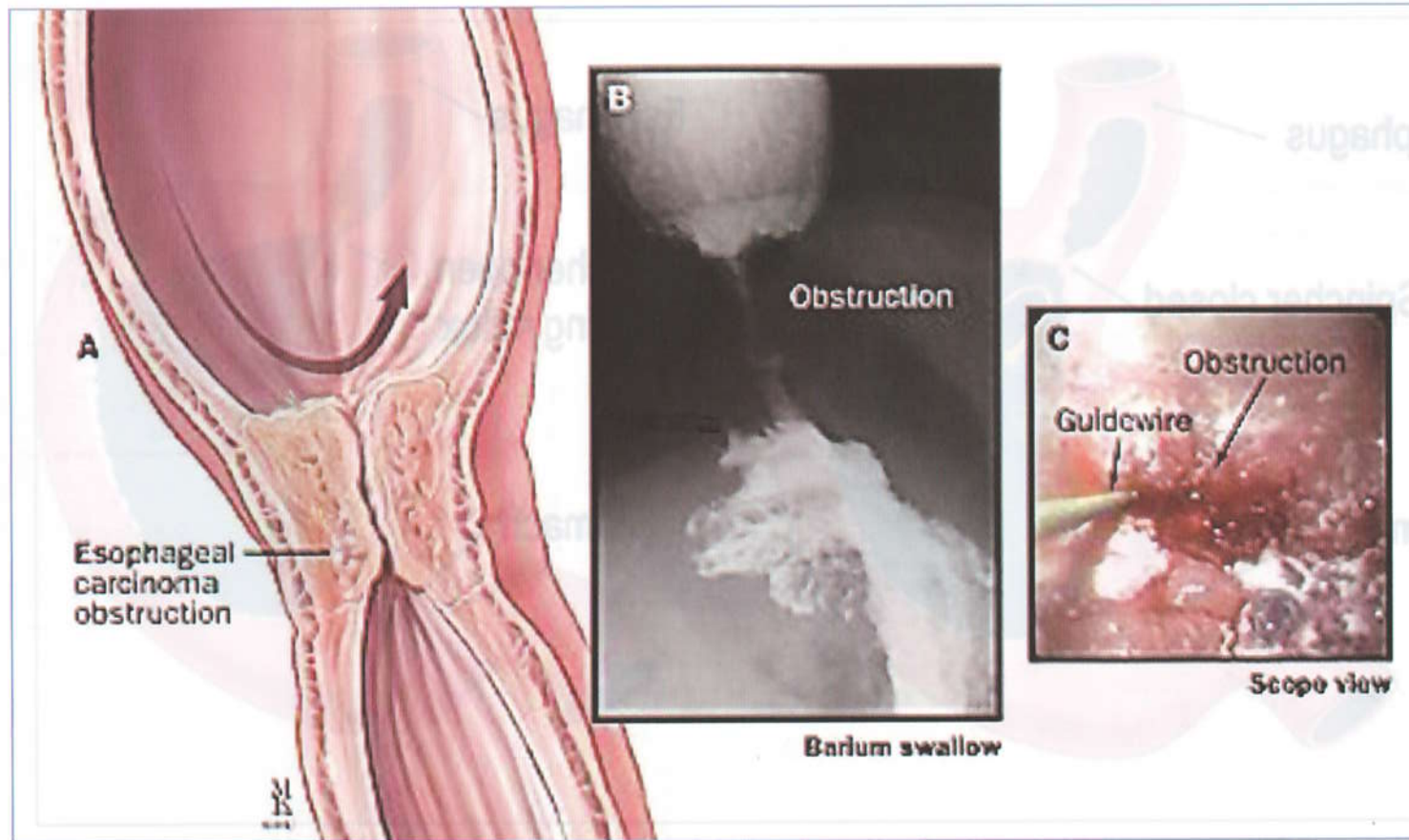


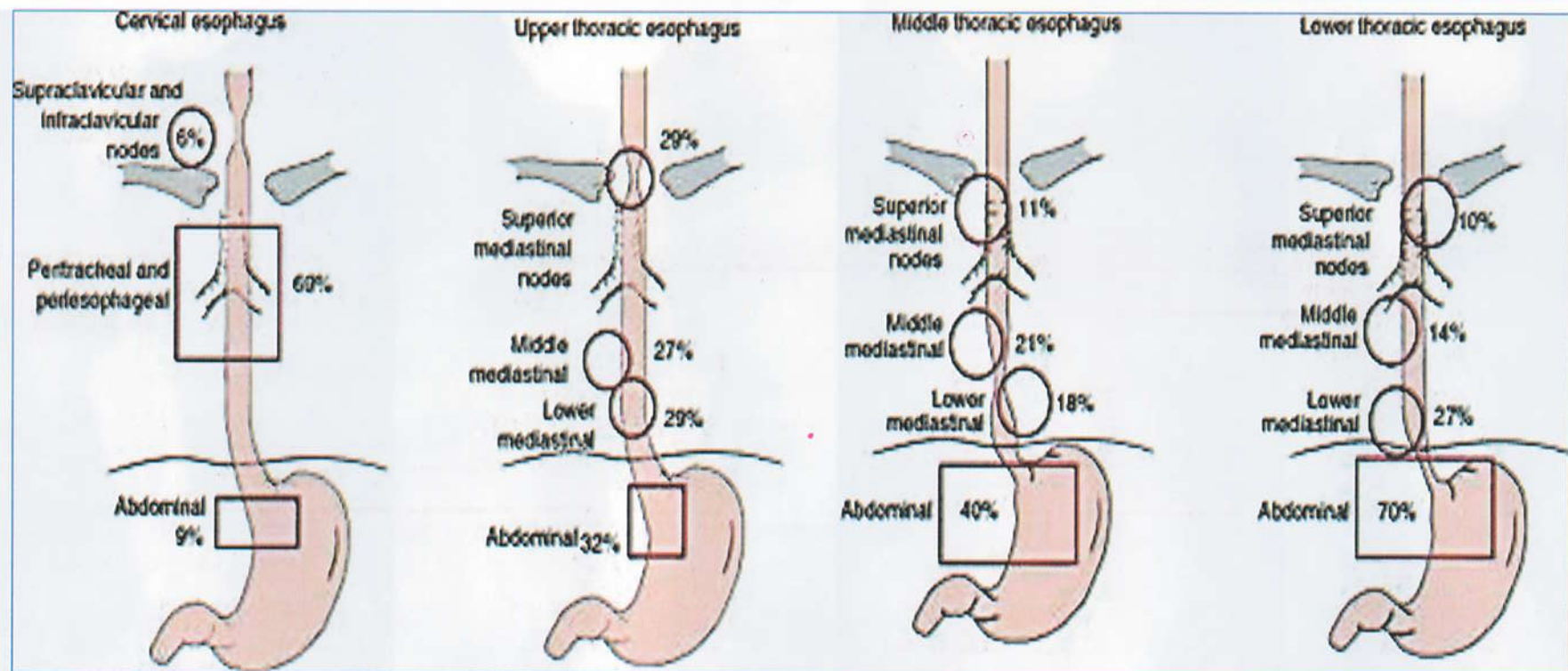
Surgical management of CDH

Gastroesophageal reflux disease (GERD)



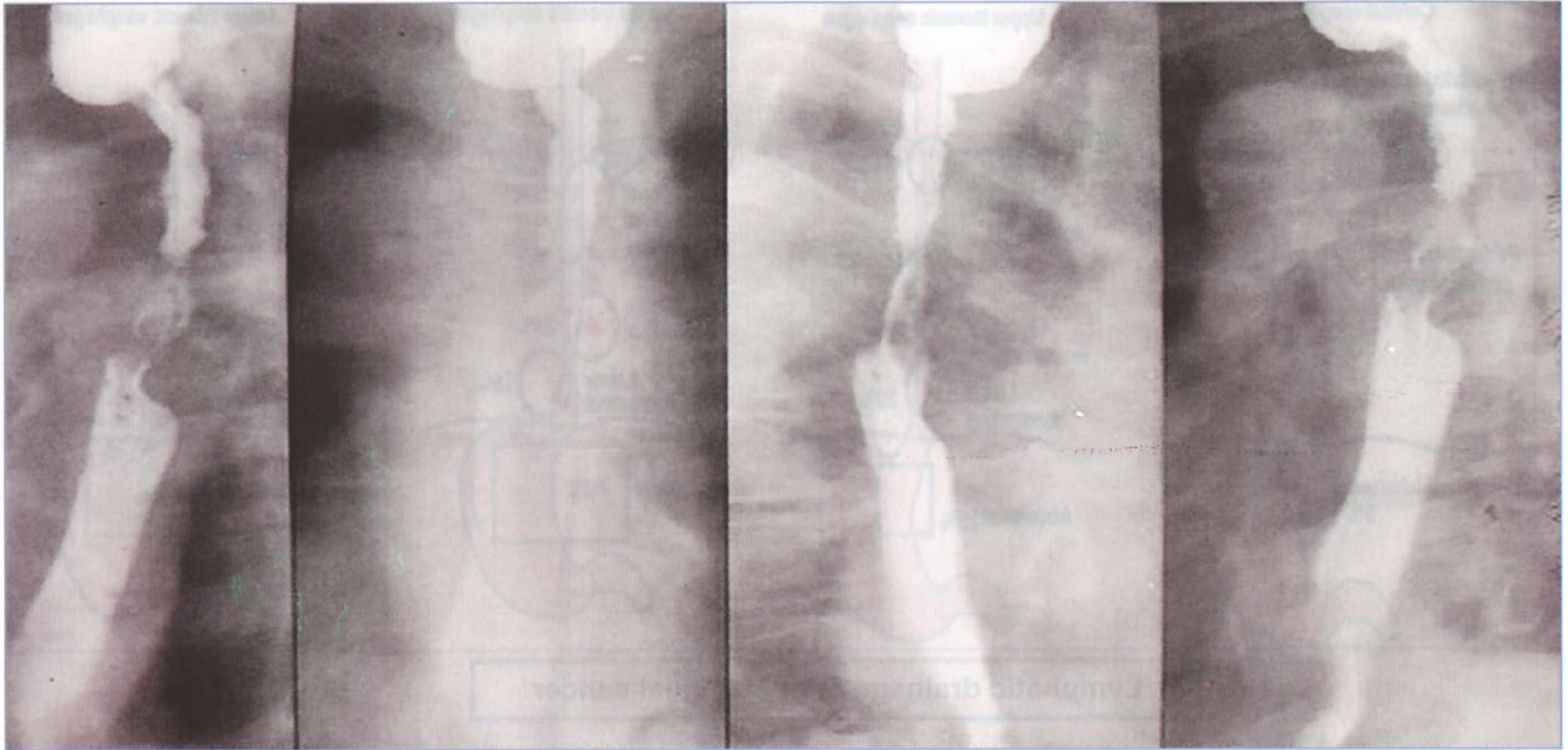
Esophageal carcinoma





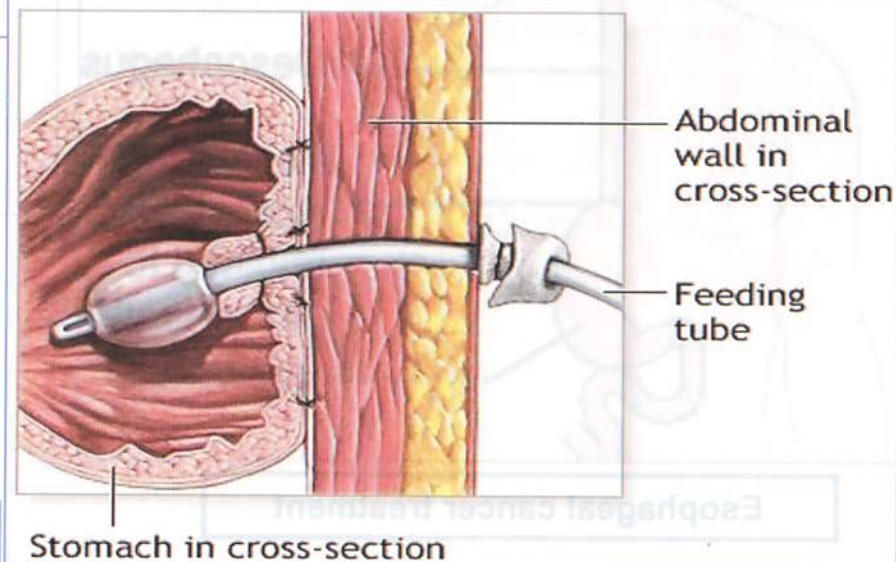
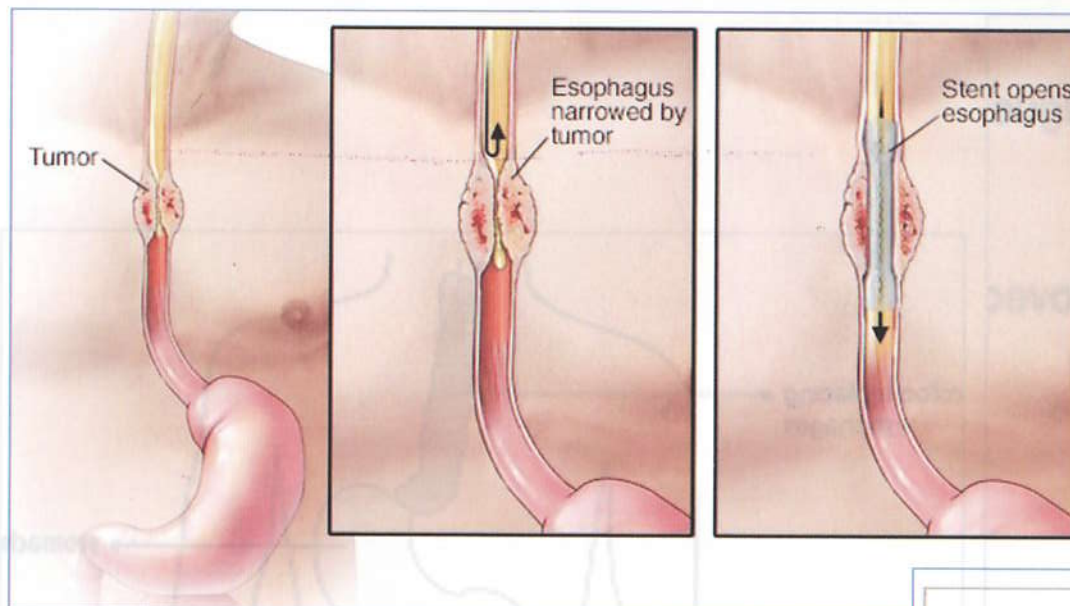
Lymphatic drainage of esophageal cancer

Barium swallow showing esophageal cancer

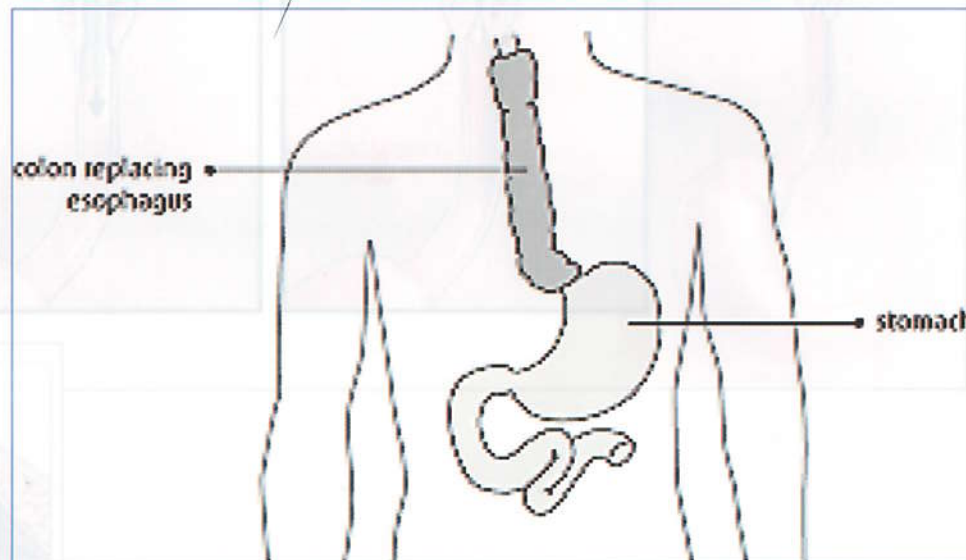
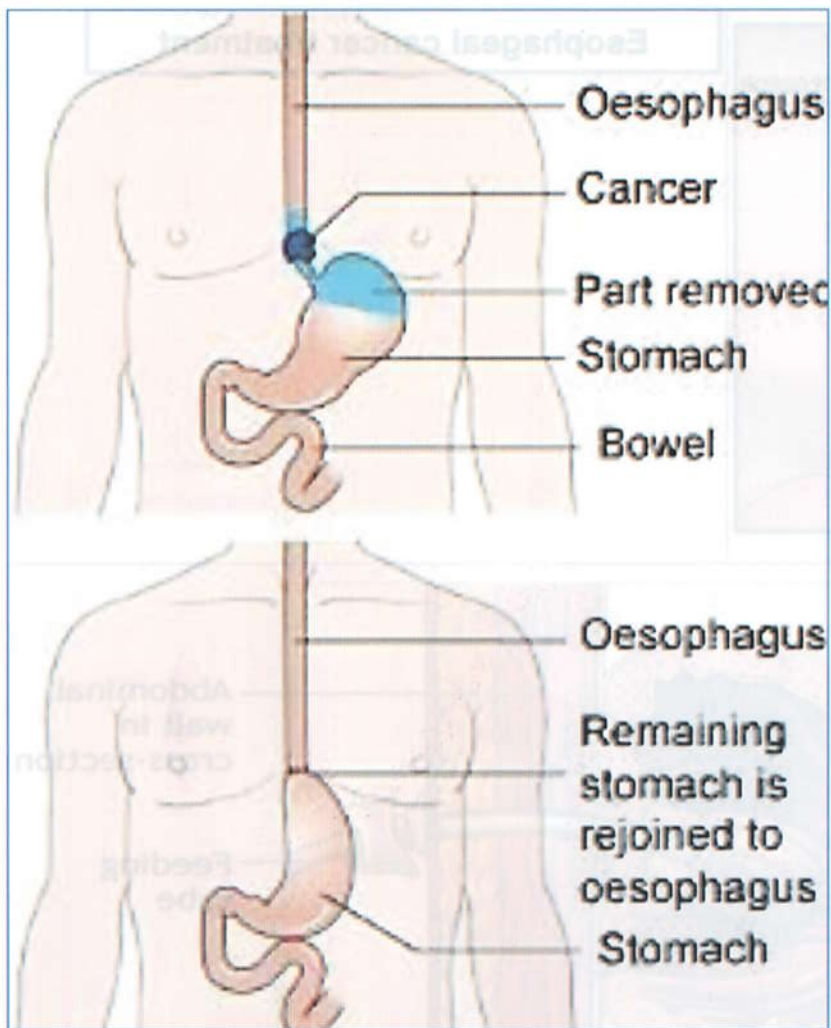


Barium swallow showing esophageal cancer

Esophageal cancer treatment



Gastrostomy

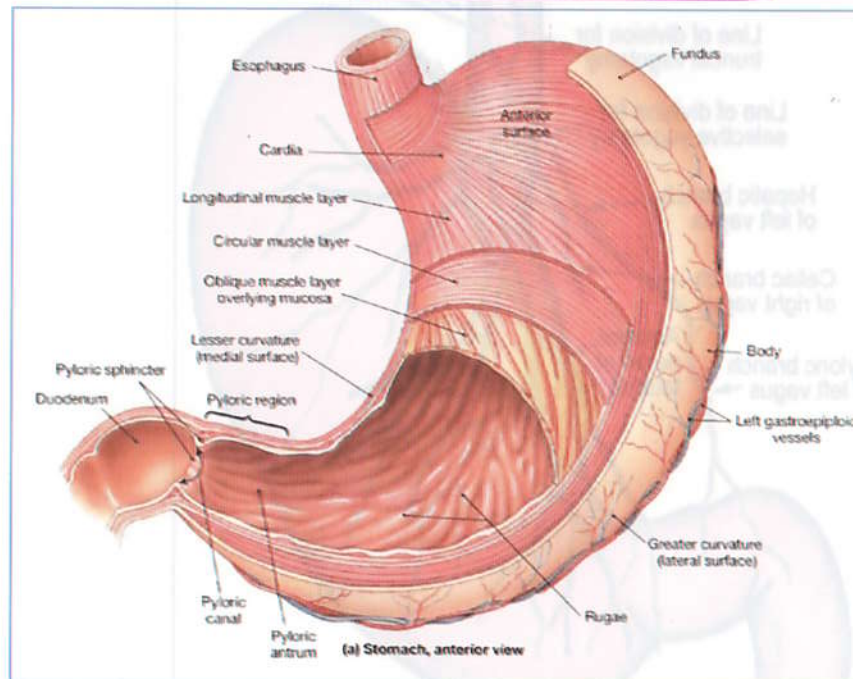


Reconstruction using the colon

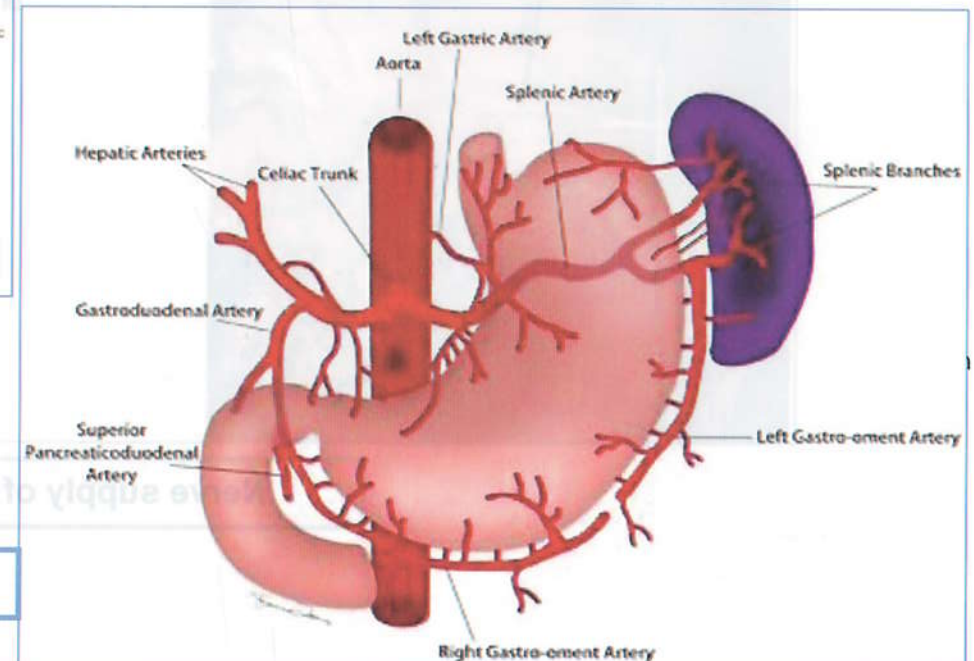
Esophageal cancer treatment

Stomach

Stomach anatomy

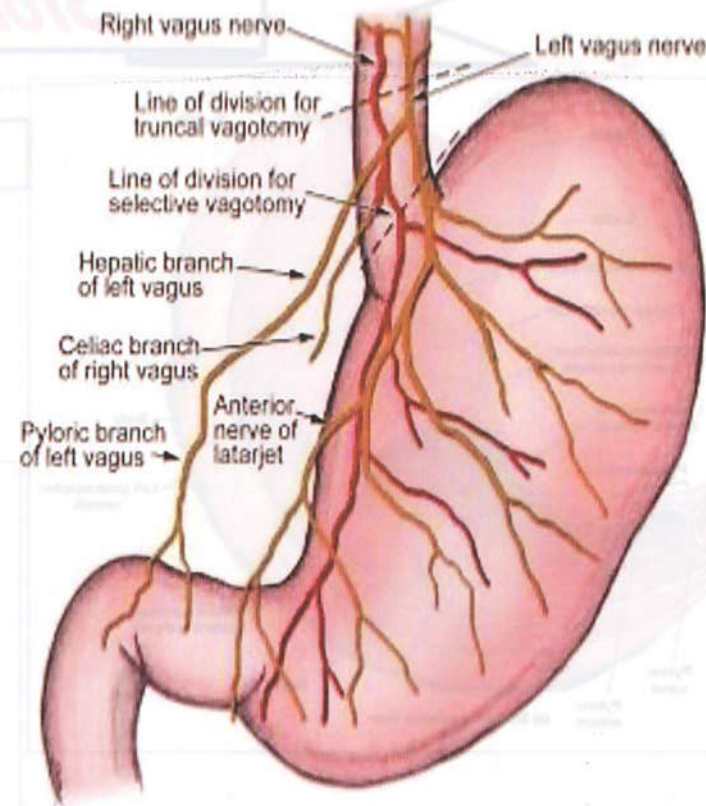


Blood supply of stomach



NERVE SUPPLY

- Intrinsic
- Sympathetic
- Parasympathetic



Nerve supply of stomach

Congenital Hypertrophic Pyloric Stenosis

CLINICAL PRESENTATION

- History: 2nd - 8th week of life
- Projectile, frequent episodes of non-bilious vomiting 30-60 minutes after feeding
- Weight loss
- Persistent hunger
- Jaundice (2%)- due to decreased hepatic glucuronosyl transferase associated with starvation



Hypertrophied pylorus palpable as a mass "Olive"

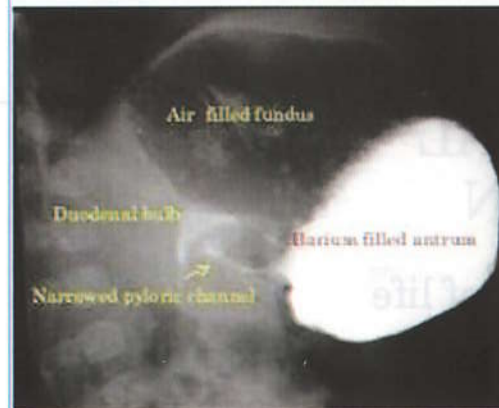


US image of CHPS

BARIUM SWALLOW



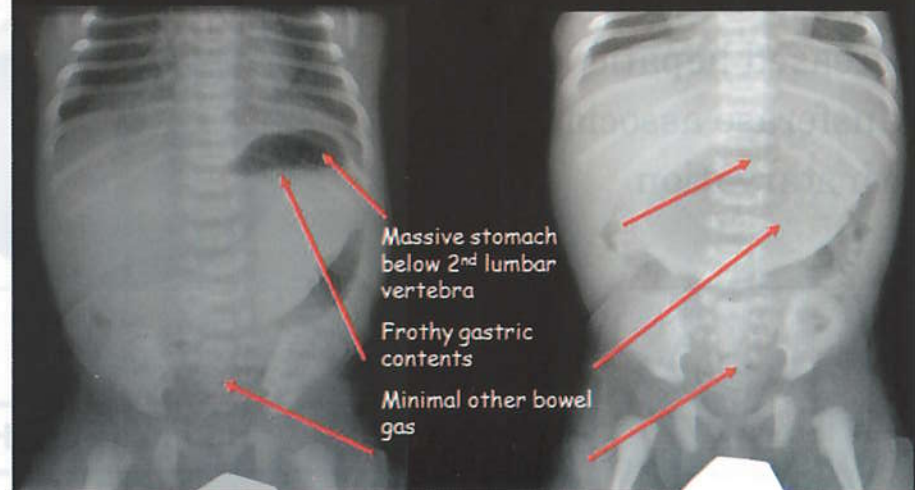
Barium meal of CHPS



Normal stomach

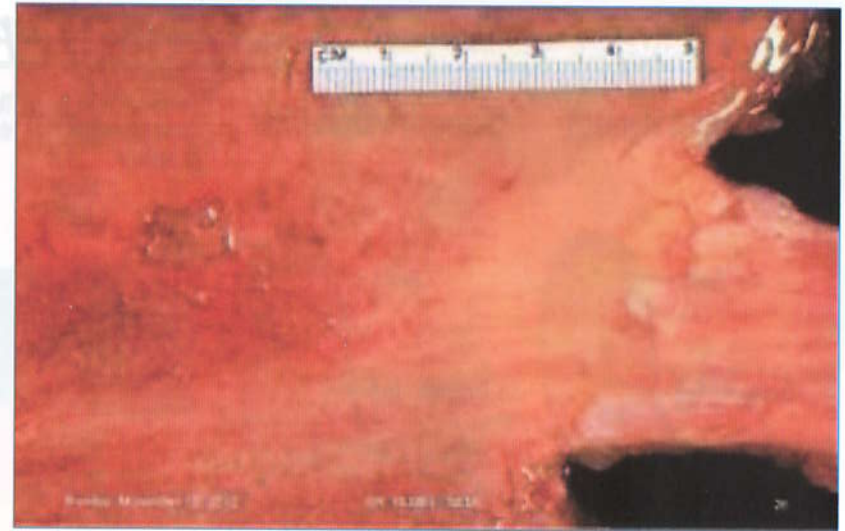
String sign

Hypertrophic Pyloric Stenosis

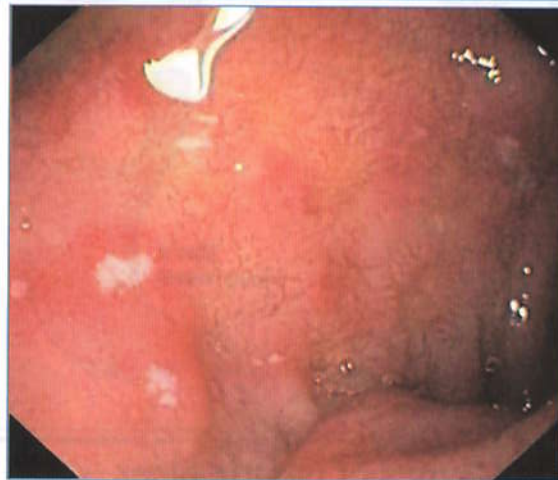




Acute gastric dilation



Acute gastric ulcer

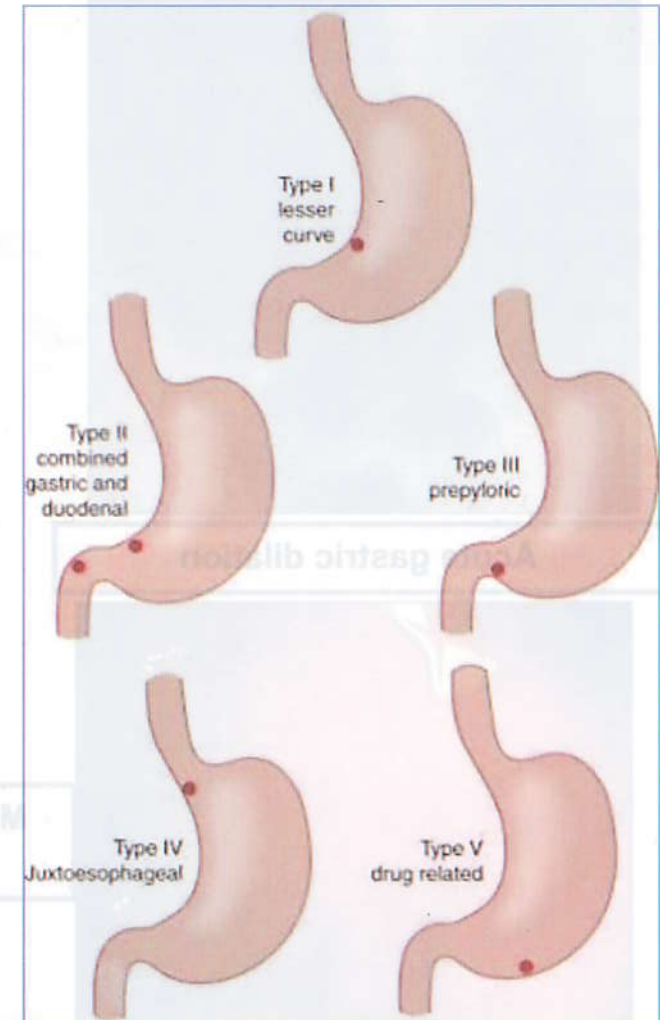
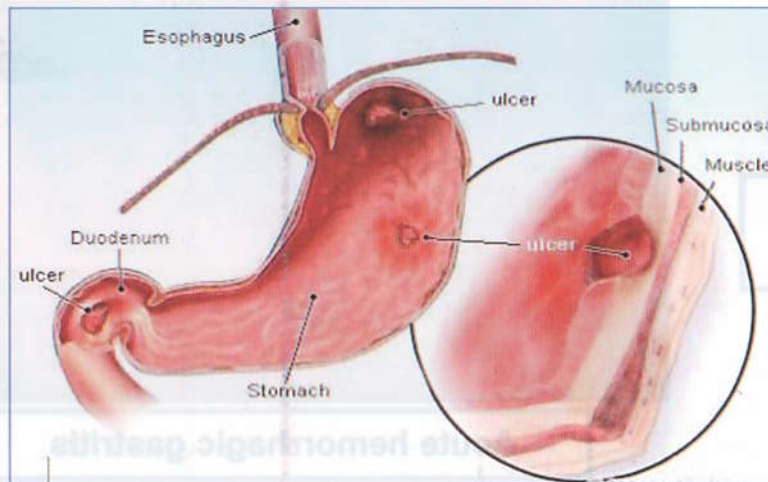
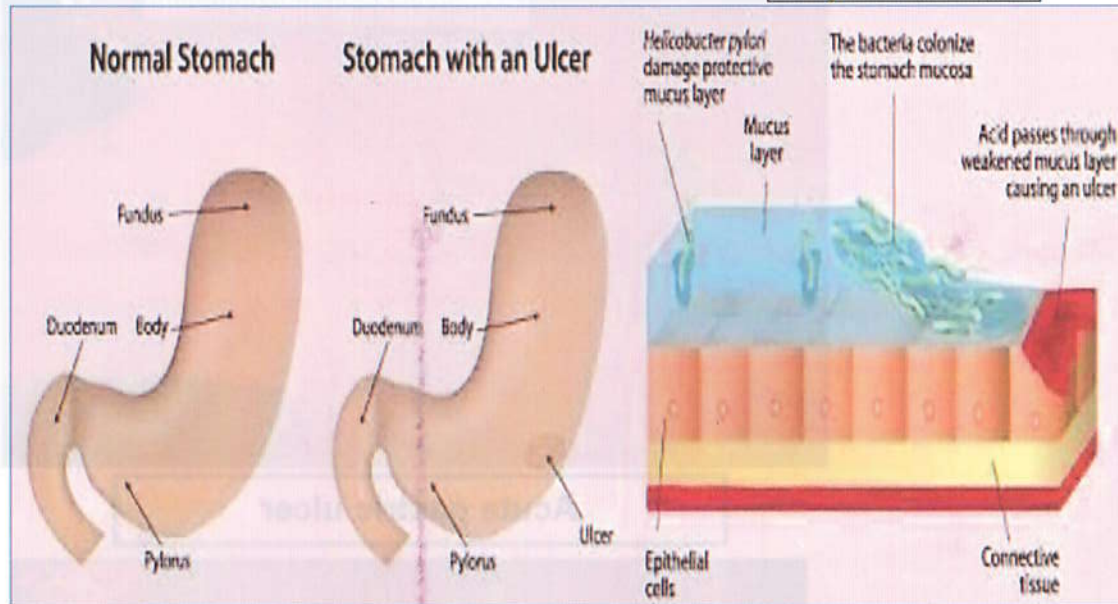


Multiple gastric erosions



Acute hemorrhagic gastritis

Peptic ulcer



Types of gastric ulcer



Barium study showing benign DU



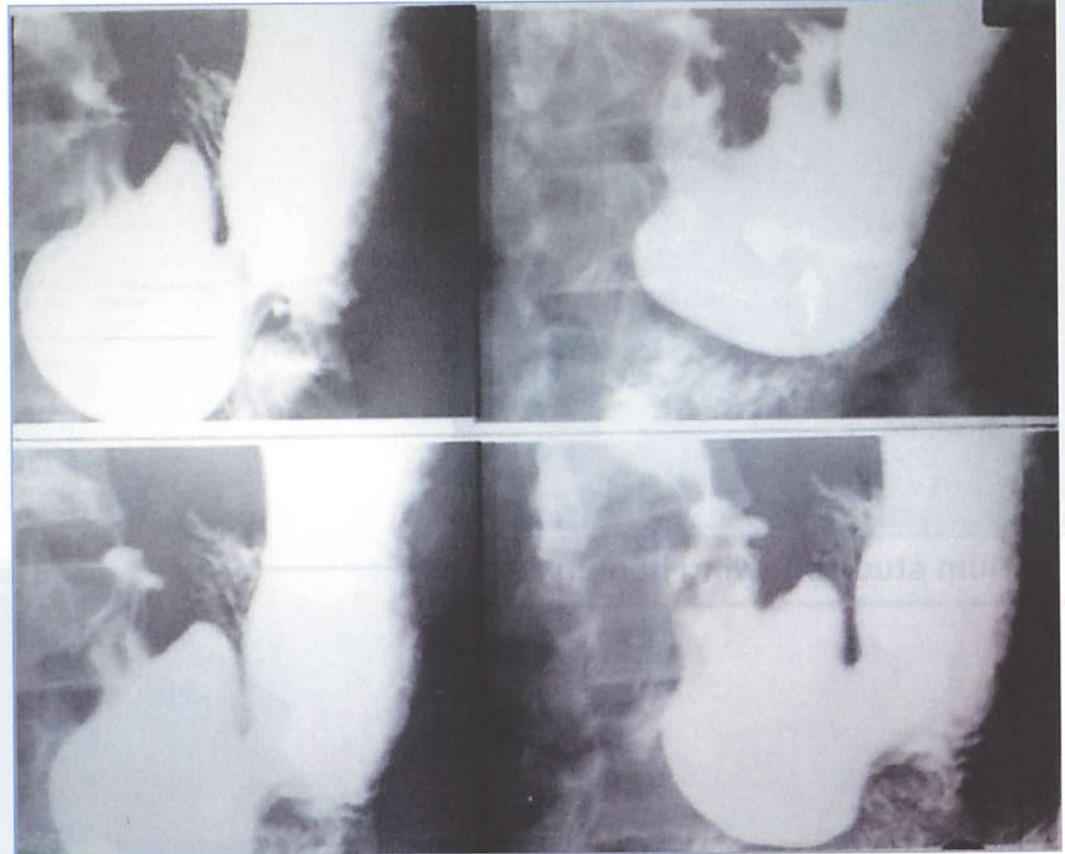
Barium study showing benign GU



X-ray barium meal showing
Niche sign (direct sign of ulcer)



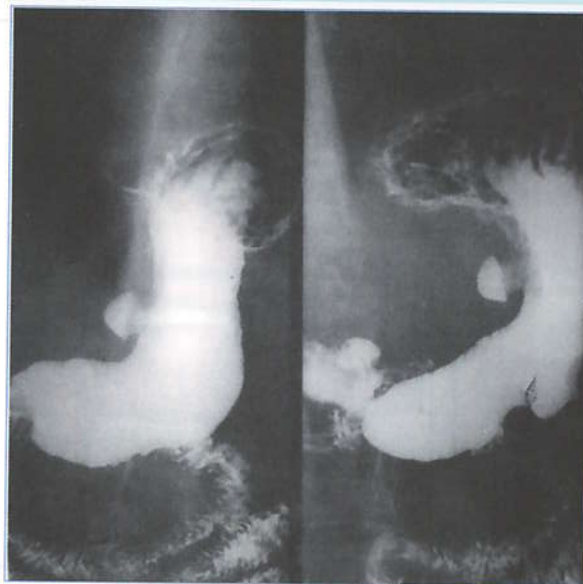
Duodenal Cap



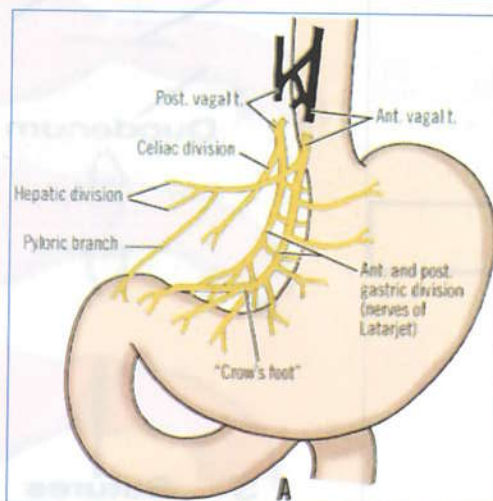
Persistent ulcer crater in the first part of duodenum



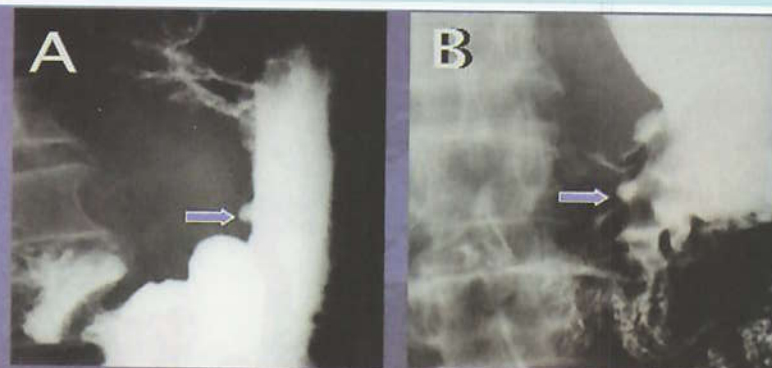
Barium meal showing chronic DU



Chronic gastric ulcers

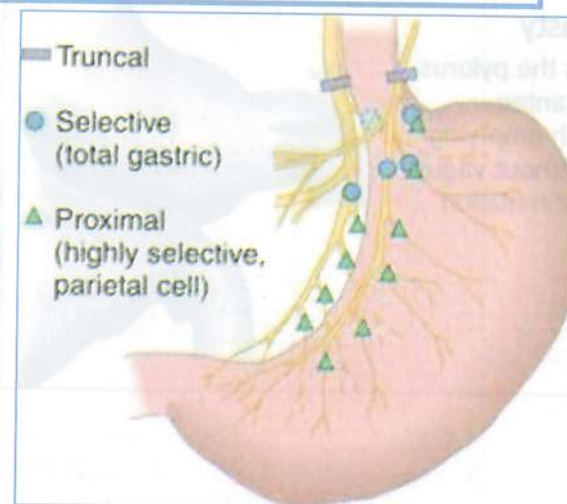


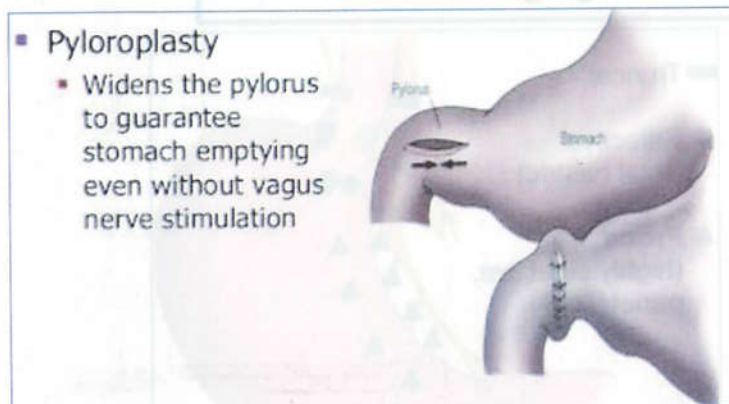
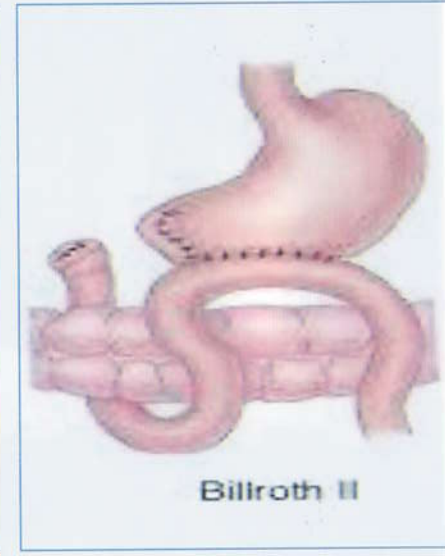
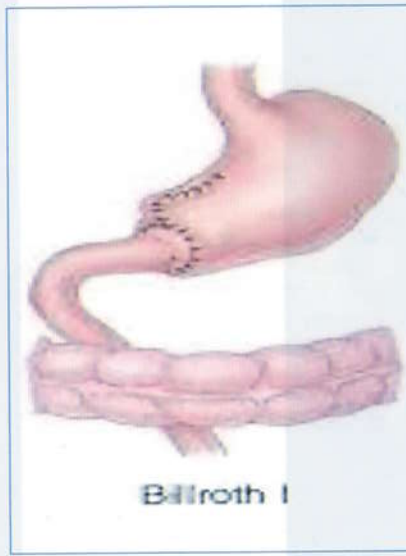
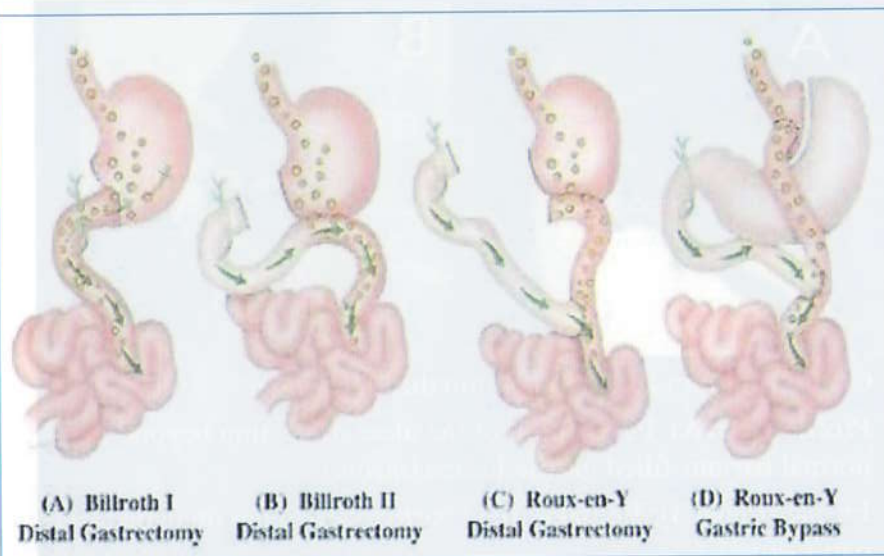
Vagotomy



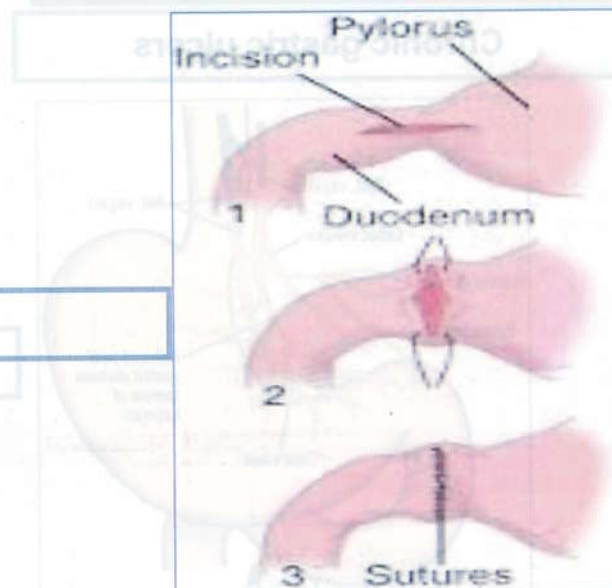
1. Crater : Barium collection within the ulcer crater
- Profile view(A): Penetration of the ulcer projecting beyond the normal barium-filled gastric lumen (arrow)
- En-face view(B): Round or oval barium collection on dependent part (arrow)

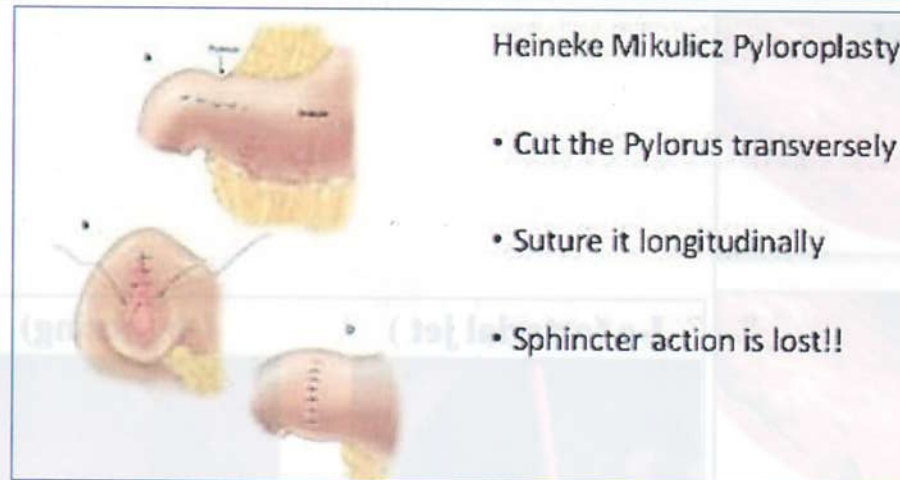
Benign gastric ulcer



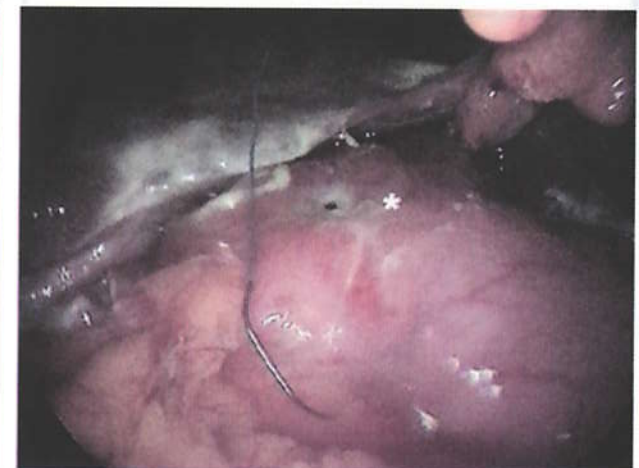
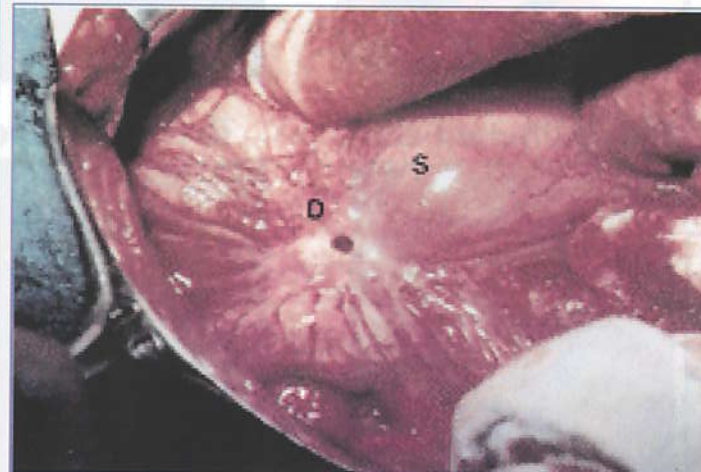
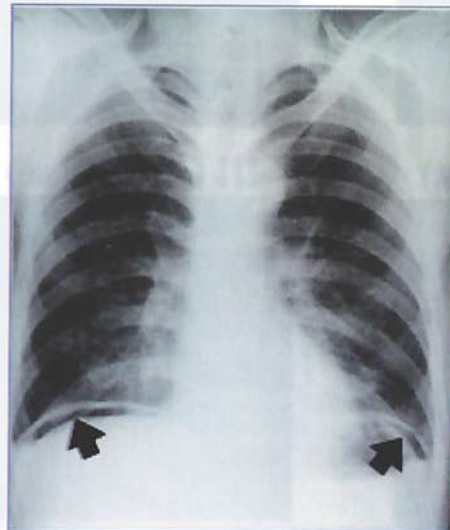


Pyloroplasty

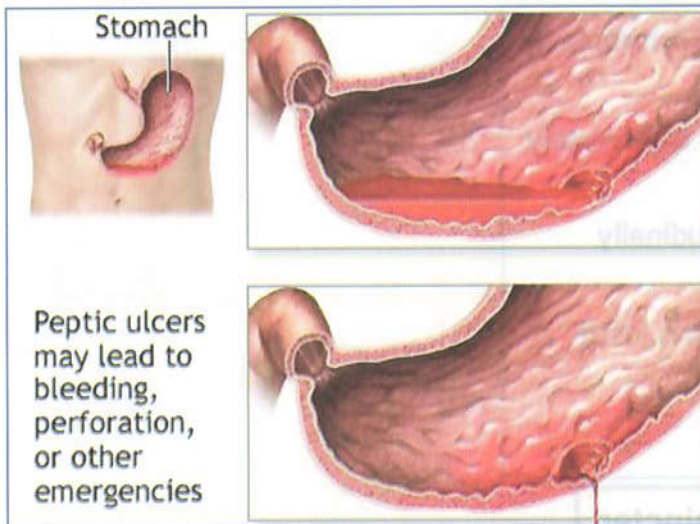




Drainage procedure – Cut the sphincter

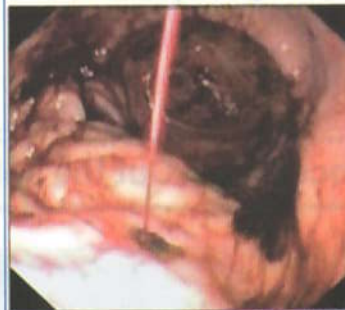


Perforated peptic ulcer

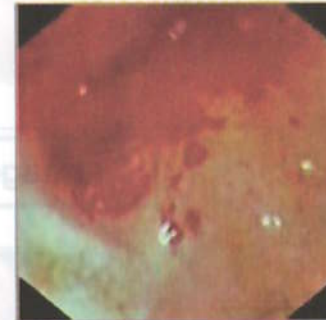


Bleeding peptic ulcer

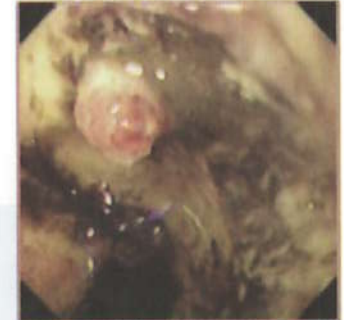
I-a (arterial jet)



I-b (oozing)



II-a (visible vessel)



II-b (adherent clot)



II-c (black spot)



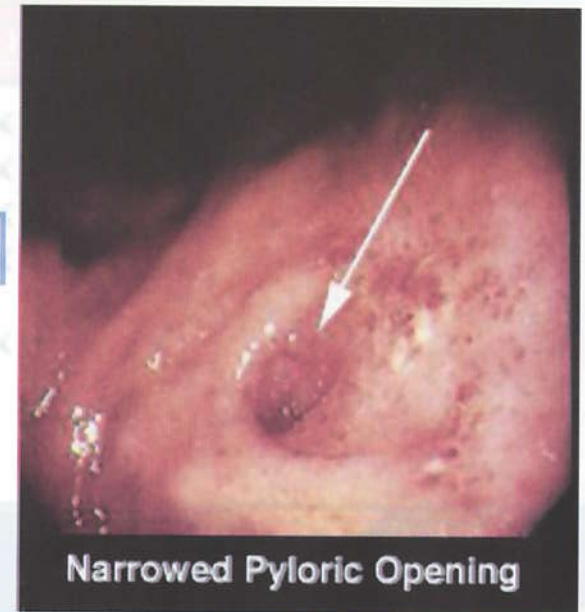
III (clean base)



Forrest's classification of PU bleeding

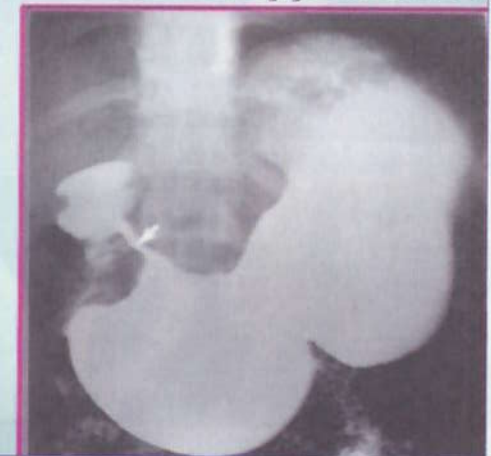


Pyloric stenosis



Narrowed Pyloric Opening

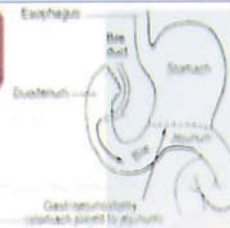
- a. Dilated stomach (often reaching the pelvis) .
- b. Soup Dish appearances or inverted hat appearance .



**Barium meal showing
Dilated stomach post pyloric stenosis**

Duodenal Stump Leak:

- 'Blown'/Difficult Duodenal Stump.
- Follows **Billroth II Gastrectomy**.
- Incidence: 3-5%.
- Commonest cause: excessive dissection of duodenal stump; compromises blood supply.
- Other causes include
 - *ischemia and necrosis (over zealous suturing)
 - *increased tension on duodenal stump caused by acute afferent loop obstruction



X-ray showing Gastric ulcer
With symmetrical radiating
Mucosal folds



X-ray showing Extensive
carcinoma involving
the cardia & Fundus



Pyloric stenosis

Gastric Ulcer

Radiologic features
- healing and scarring

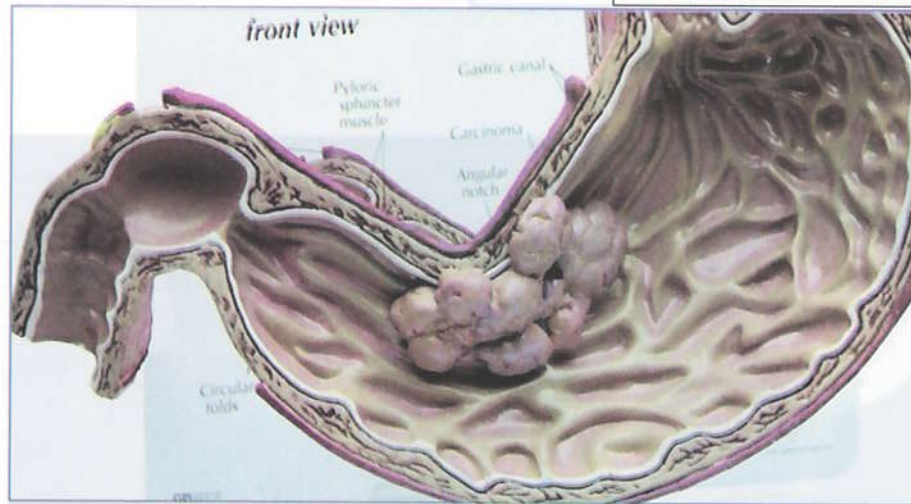


"Hourglass" stomach

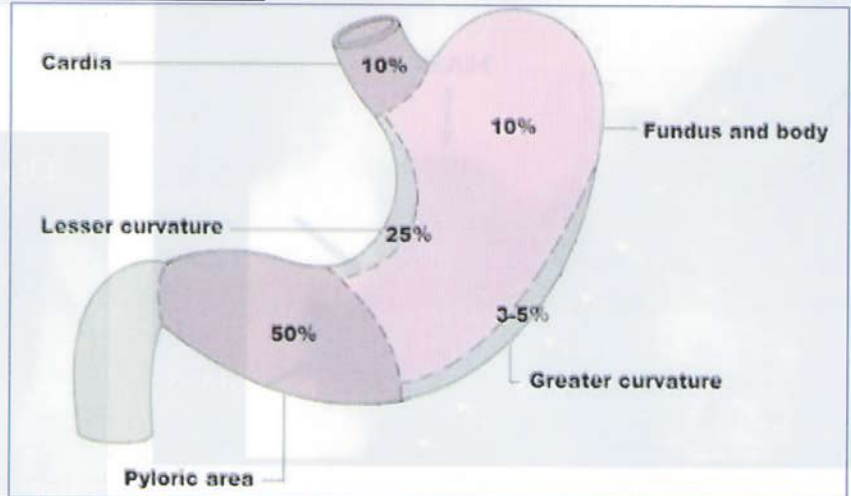
Due to chronic peptic ulceration there is fibrosis and contracture of the stomach leading to an hourglass shape as well as altered mobility

"The hypothesis is proposed that hour-glass stomach is produced by gross scarring around a severe benign chronic gastric ulcer under the influence of prolonged exposure to aspirin."

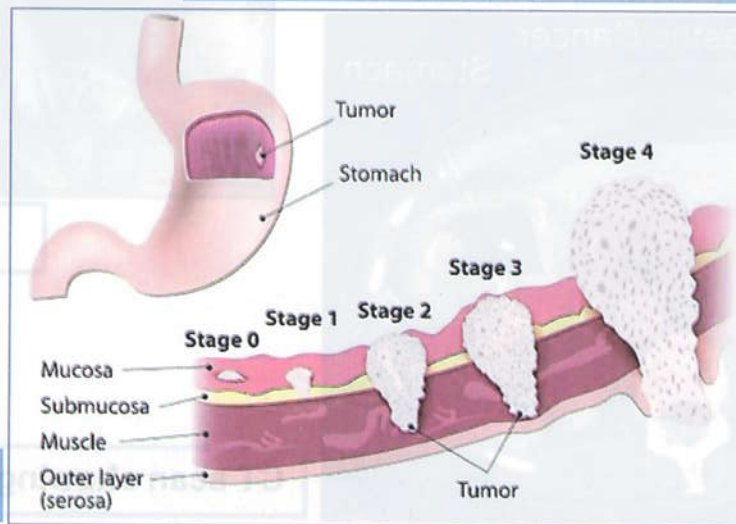
Carcinoma of the stomach



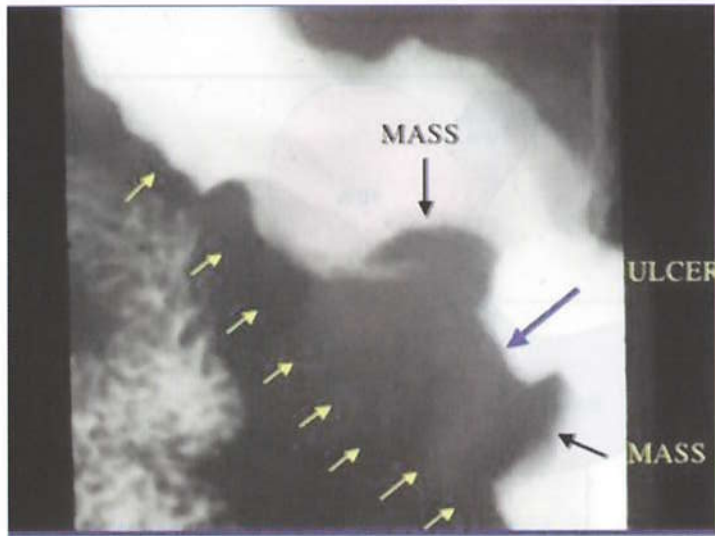
Cancer stomach



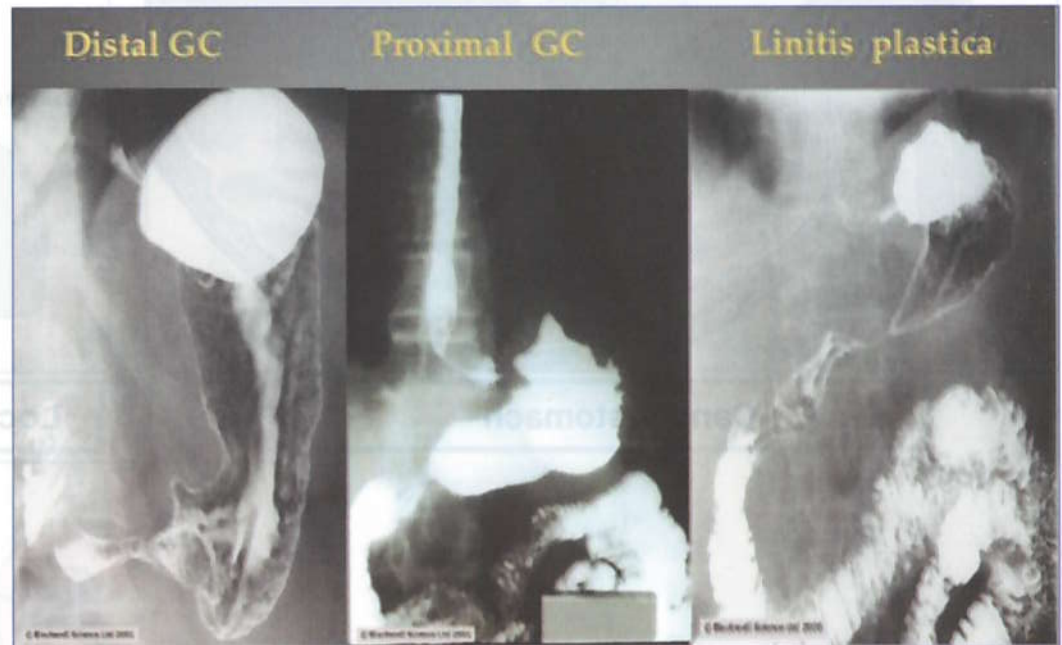
Locations of stomach cancer by percentage



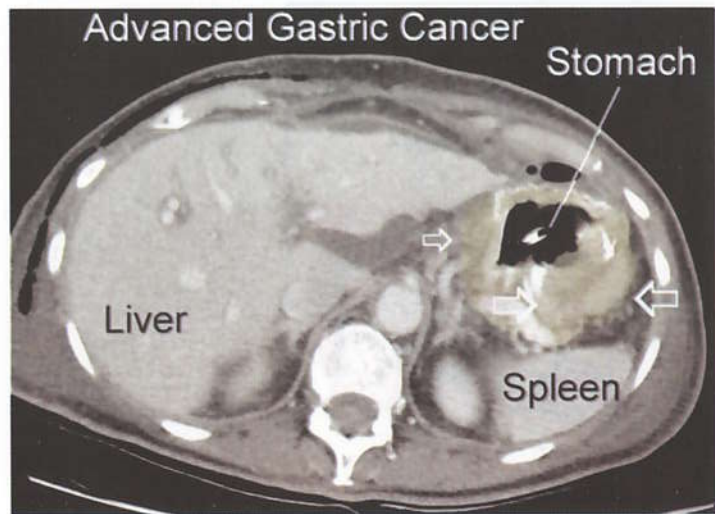
Stages of stomach cancer



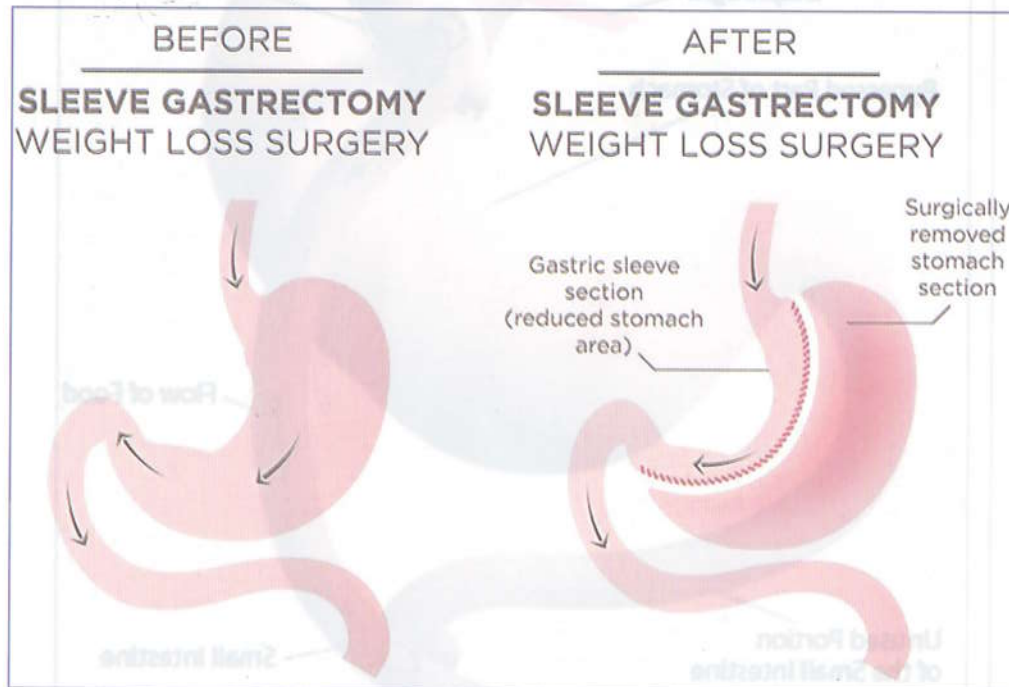
Malignant gastric ulcer



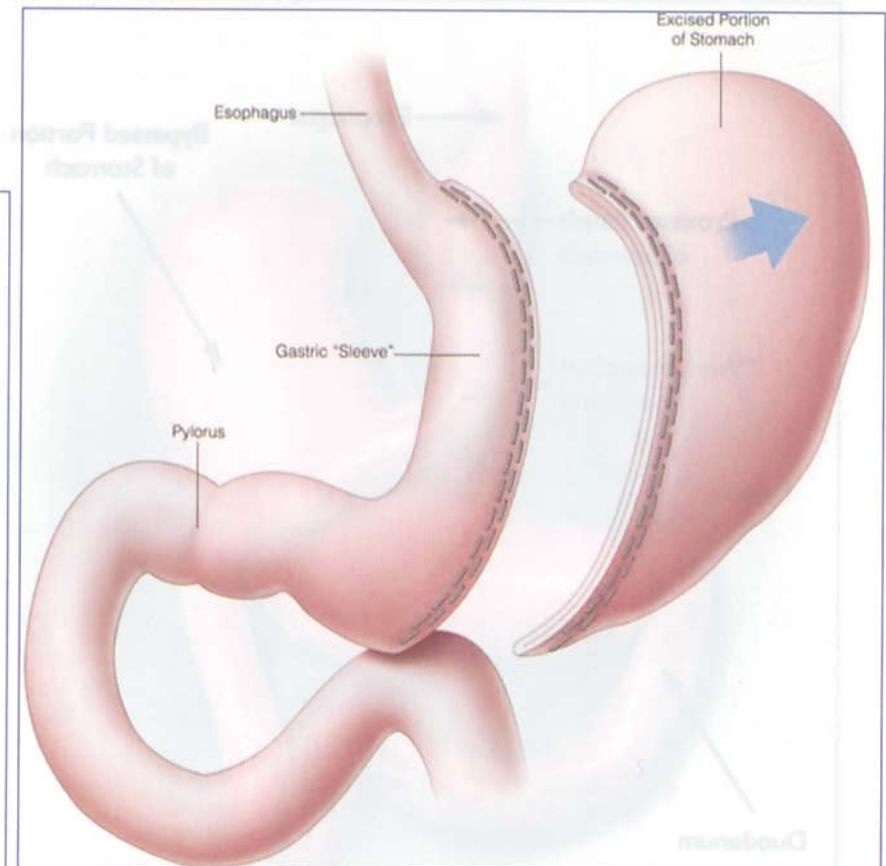
Cancer stomach



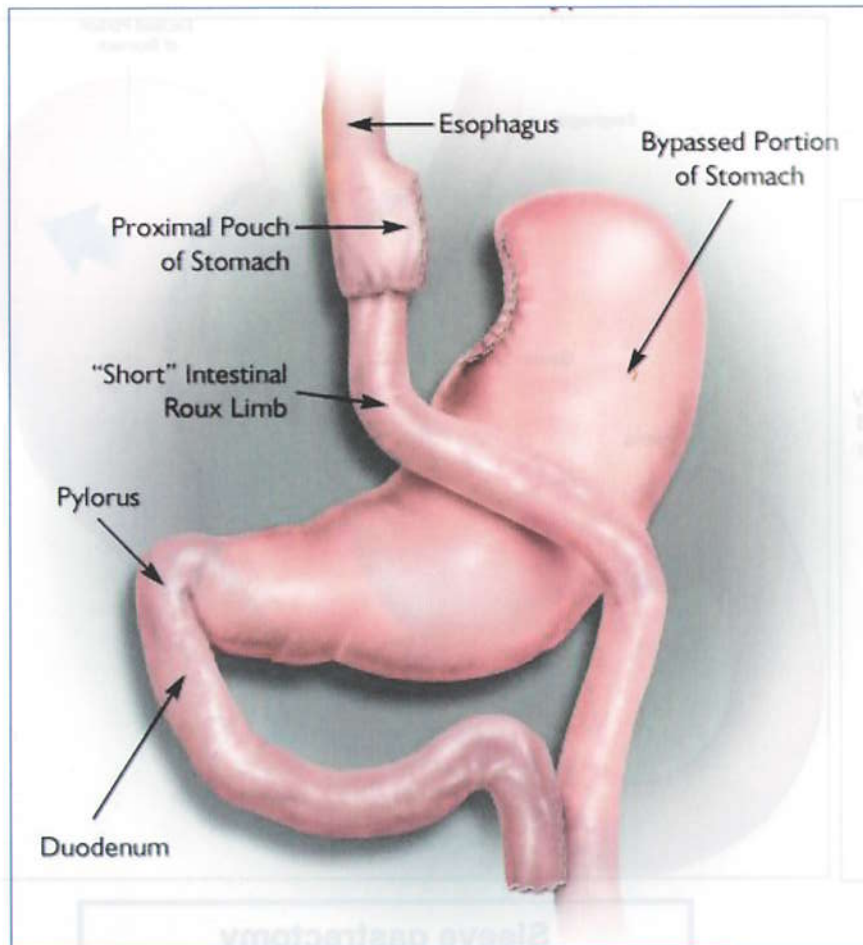
CT scan showing cancer stomach



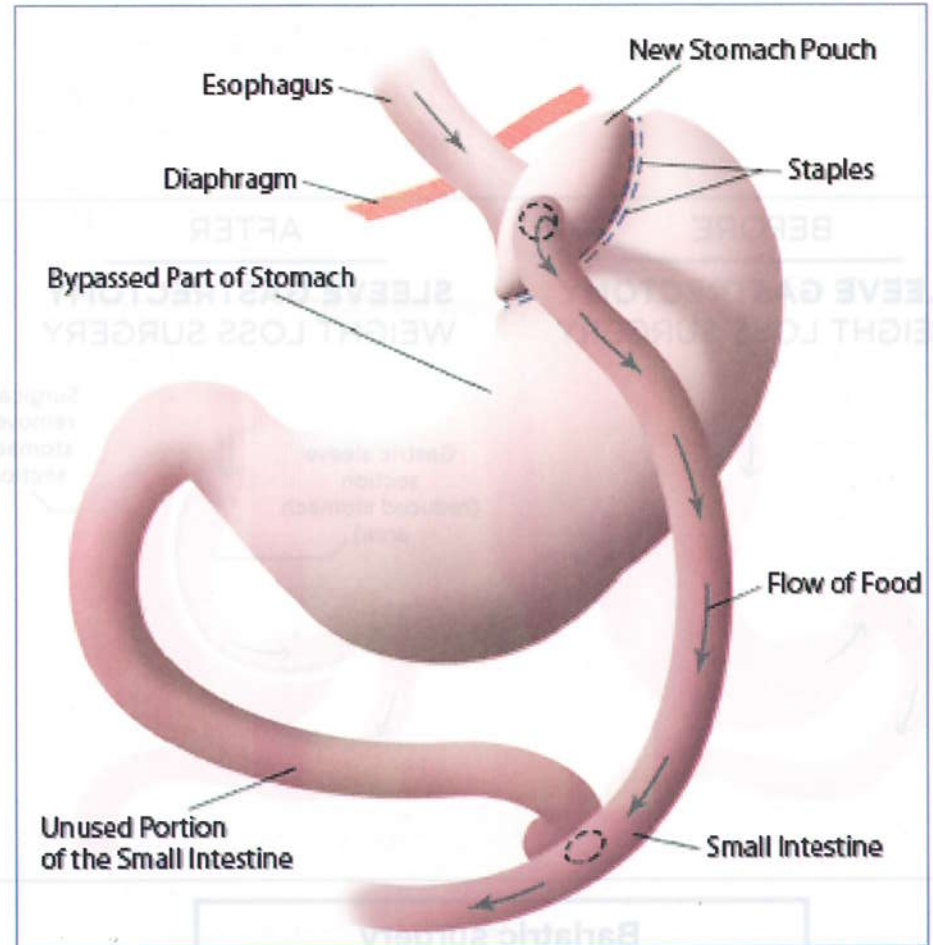
Bariatric surgery



Sleeve gastrectomy



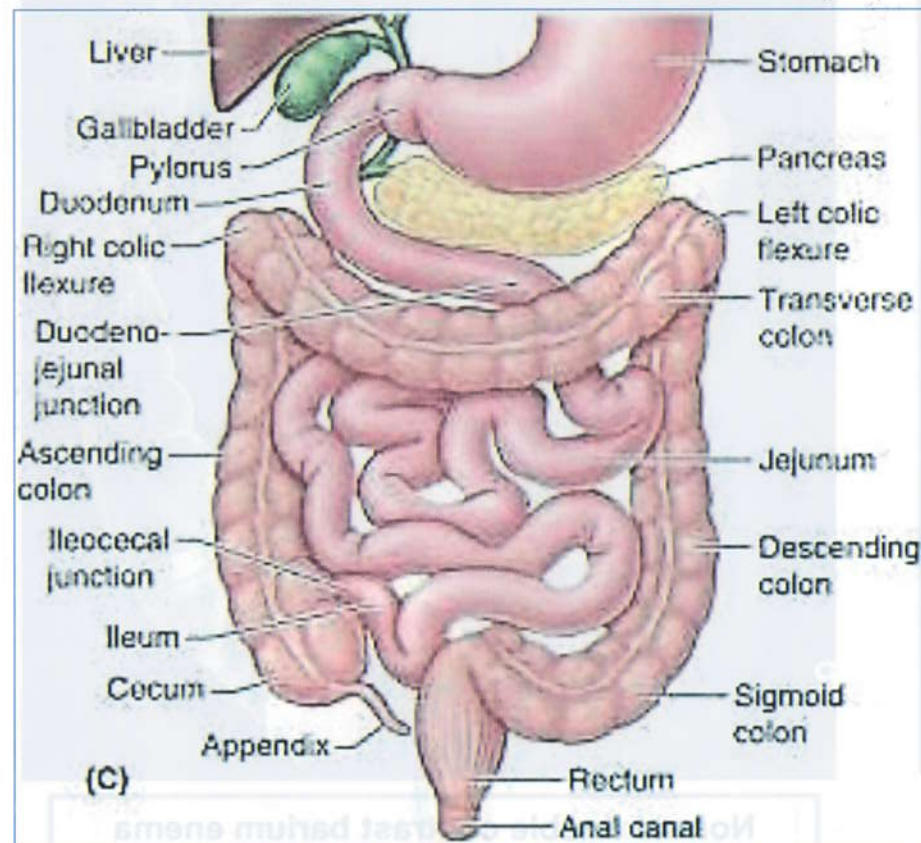
Roux-en-Y Bypass



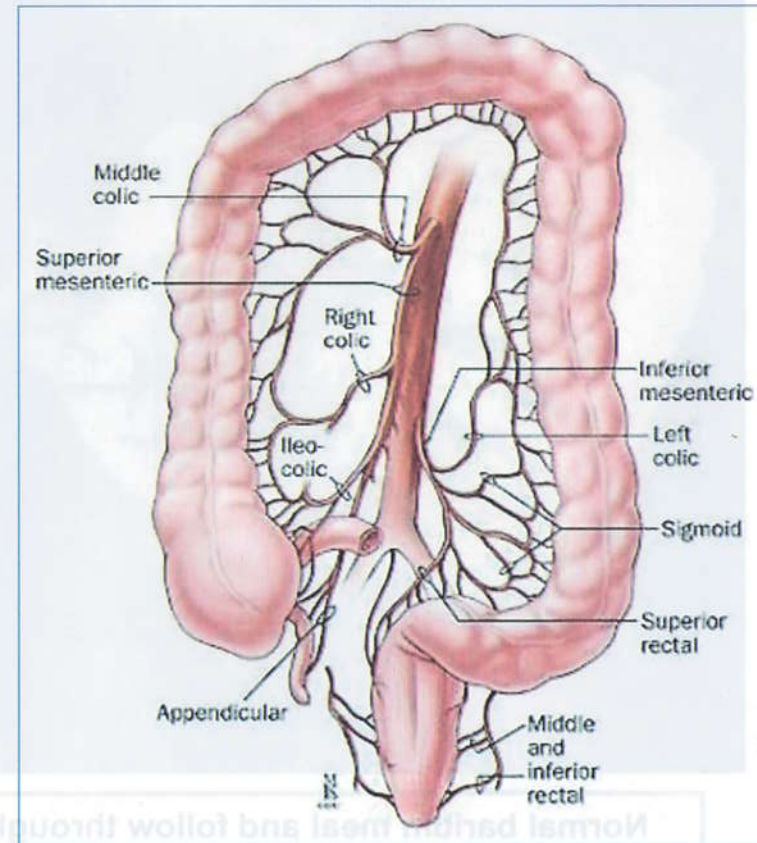
Roux-en-Y Type of Gastric Bypass

Intestine

Intestine anatomy



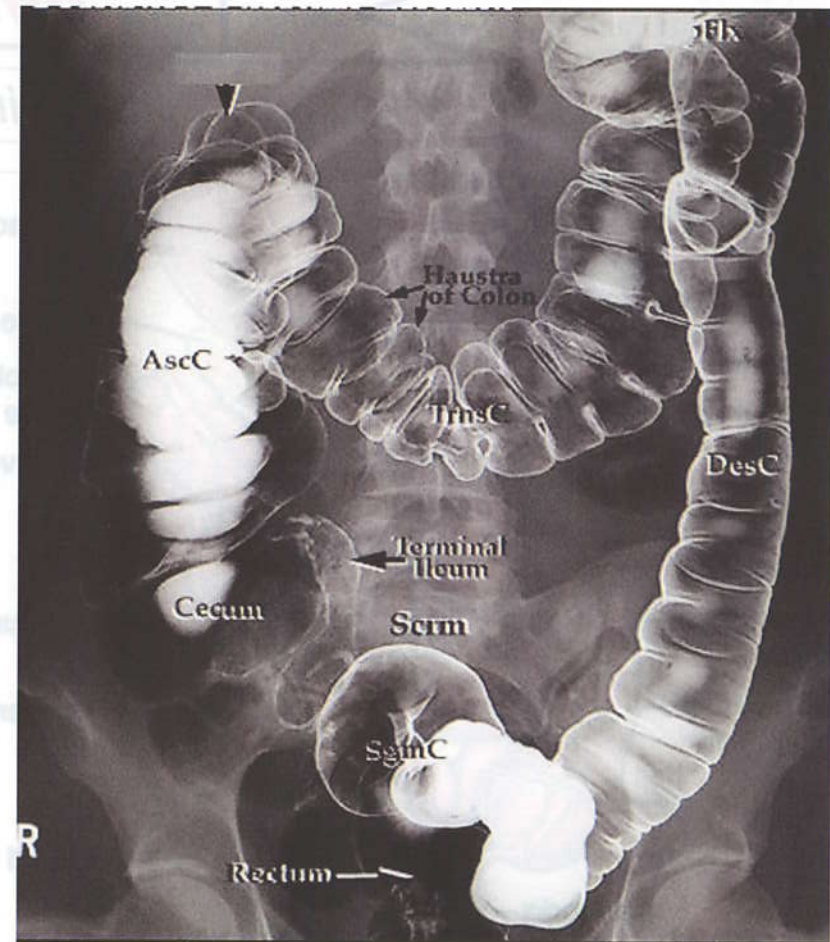
Normal anatomy of the intestine



Blood supply of the intestine

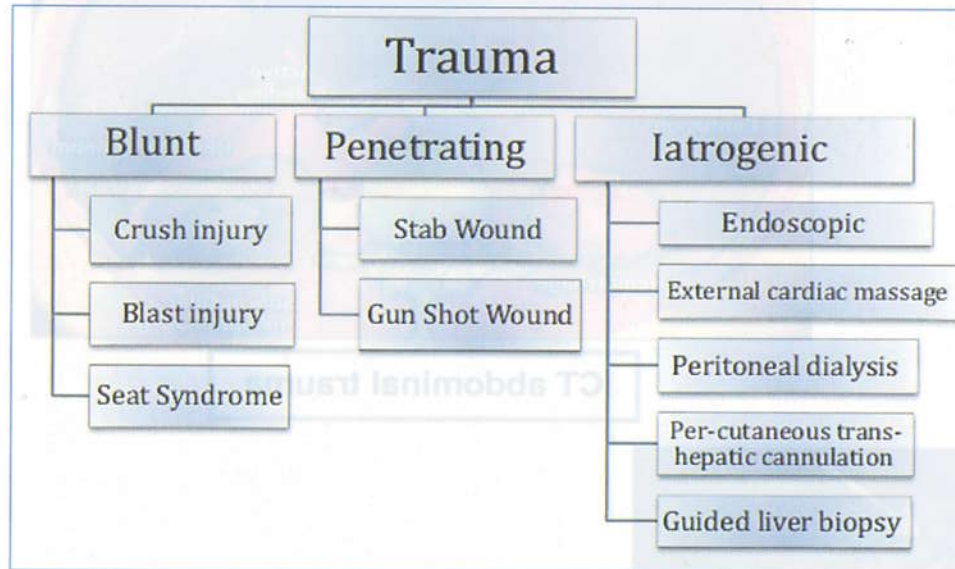


Normal barium meal and follow through

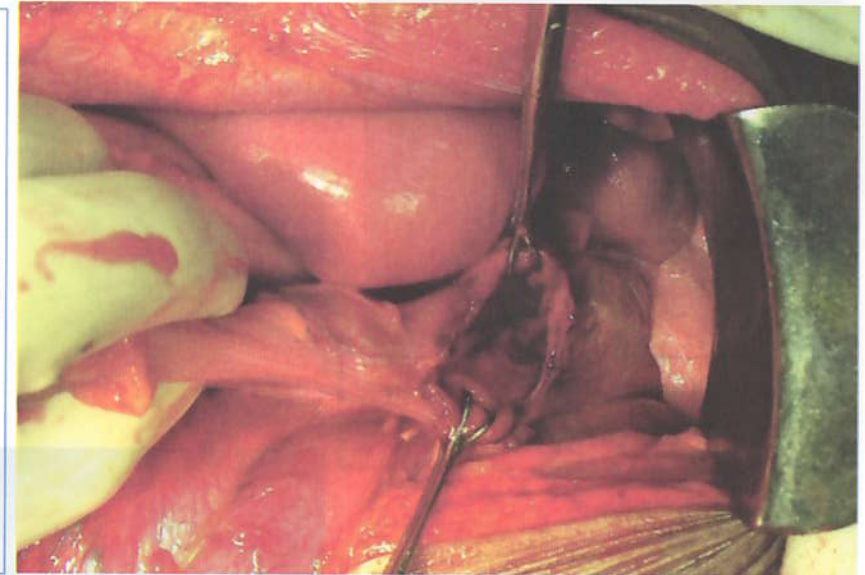


Normal double contrast barium enema

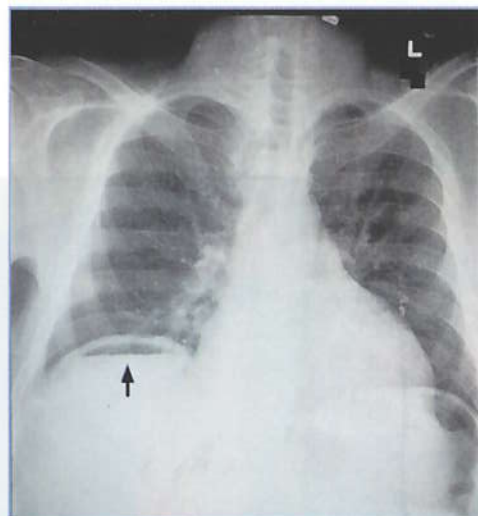
Intestinal trauma



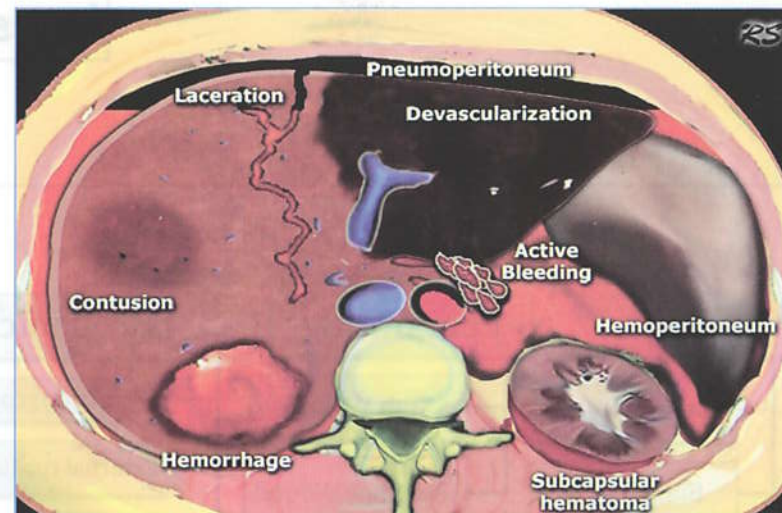
Classification of abdominal trauma



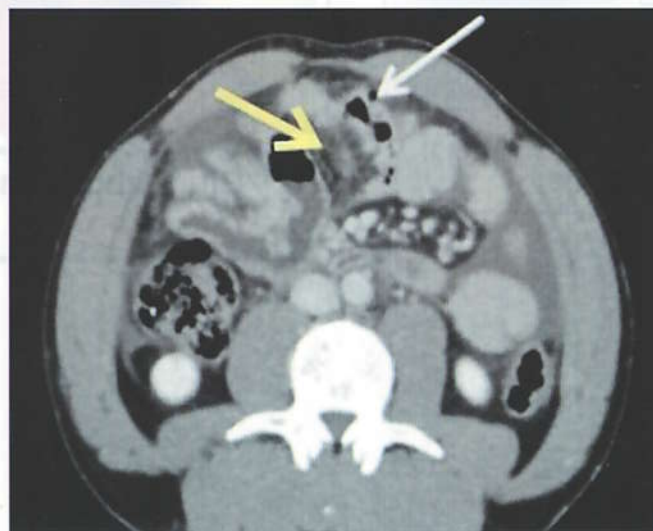
Blunt abdominal trauma with transverse bowel tear



Plain X-ray with air under diaphragm



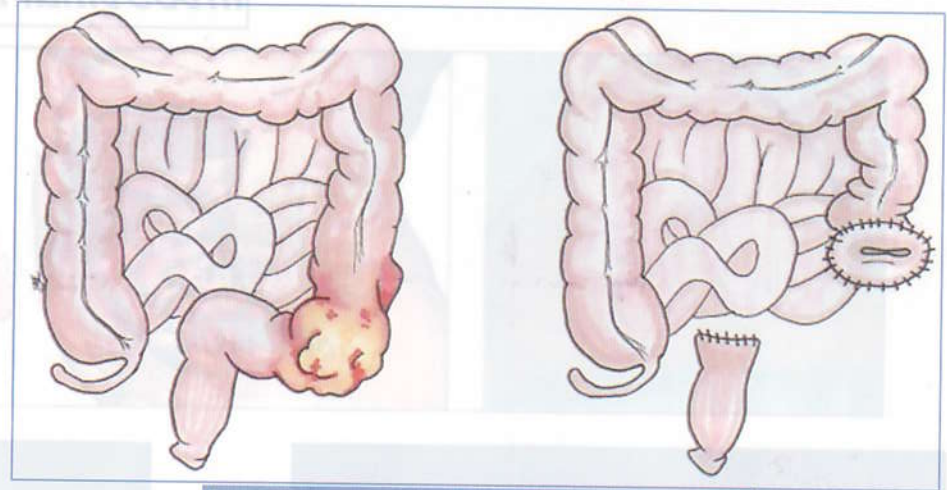
CT abdominal trauma



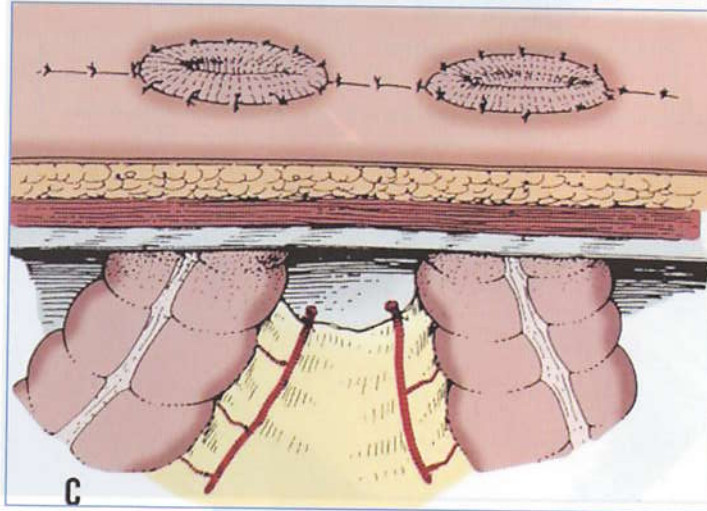
Jejunum and ileum blunt trauma



Intestinal trauma repair

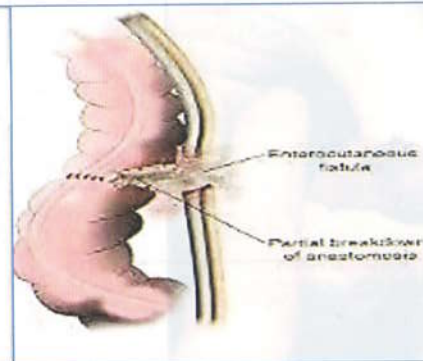
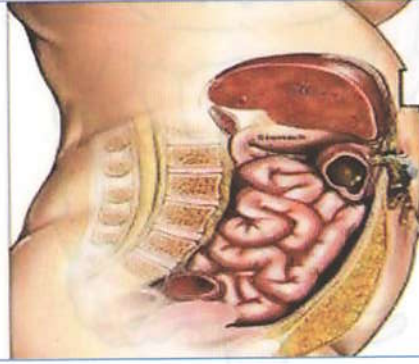


Hartmann's procedure



Mikulicz procedure

Intestinal fistula



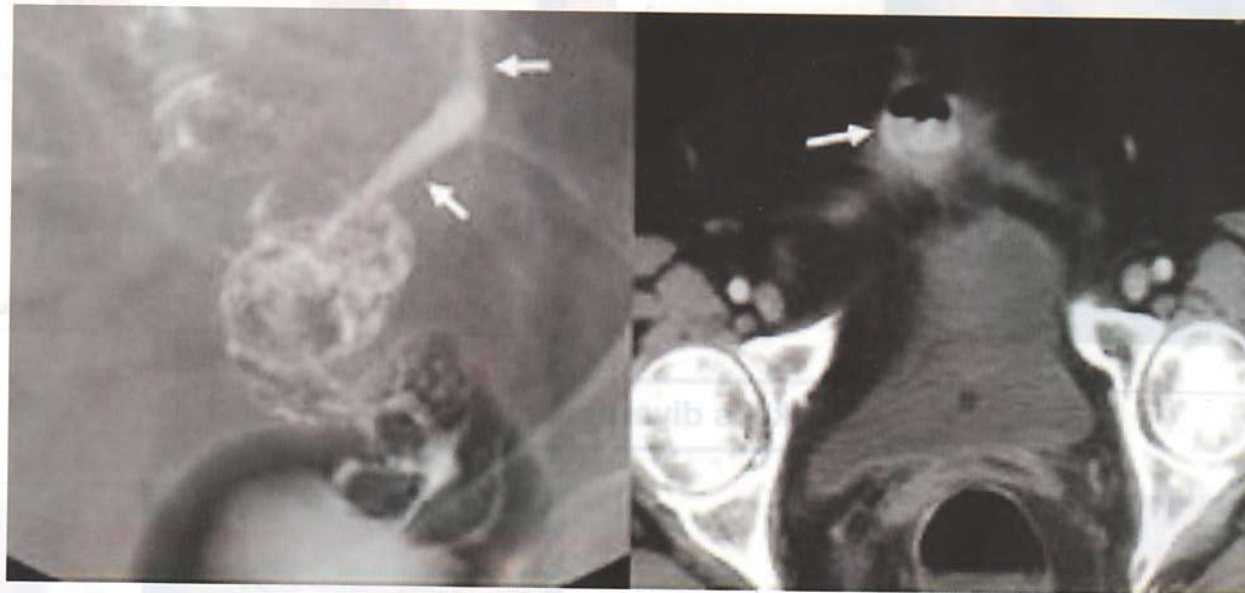
Enterocutaneous
fistula



Fistulogram

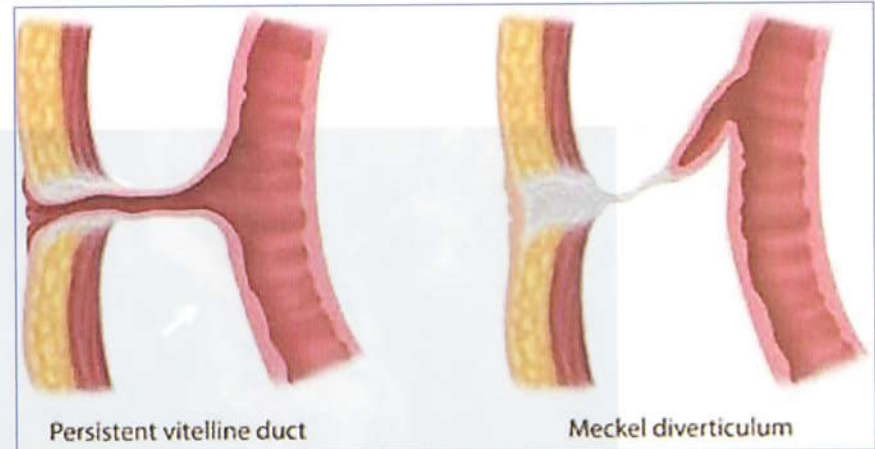


Colovesical fistula

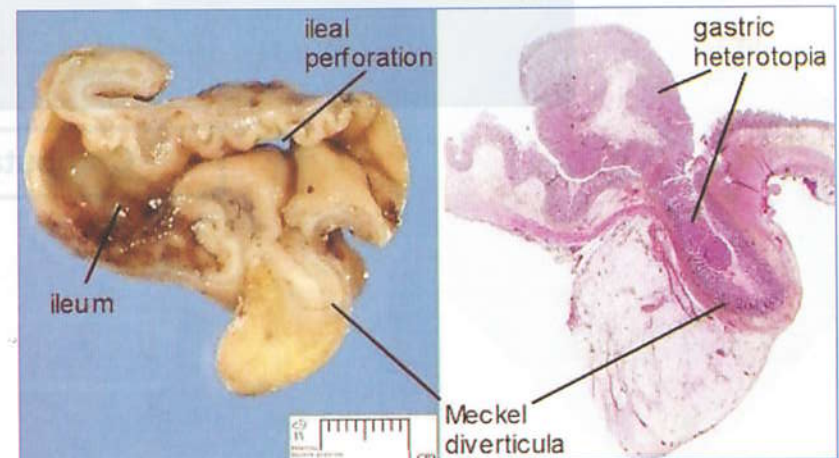


Colocutaneous fistula

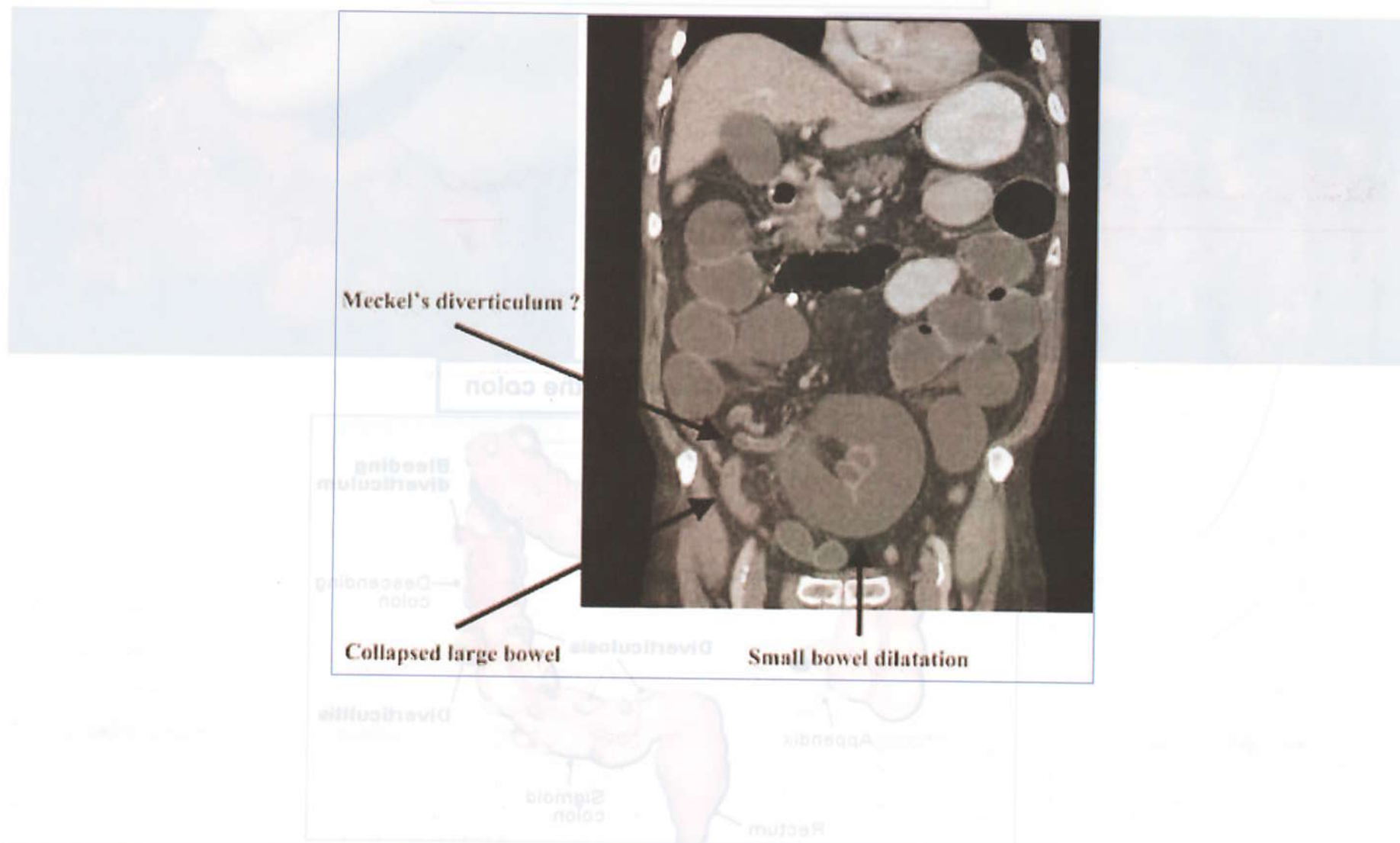
Meckel's diverticulum



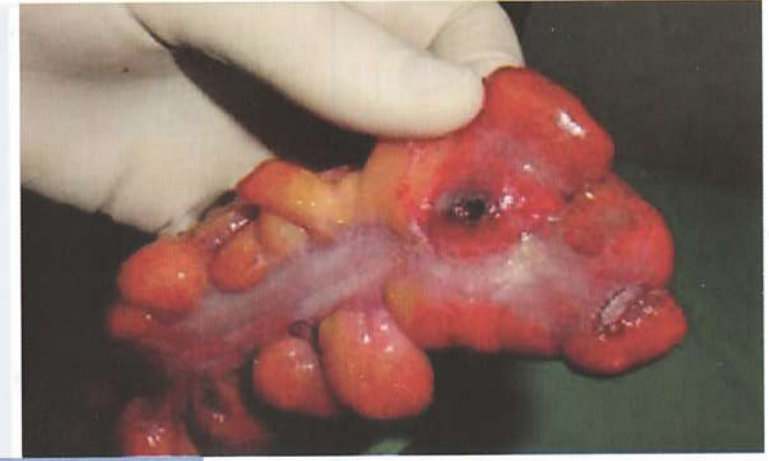
Meckel's diverticulum



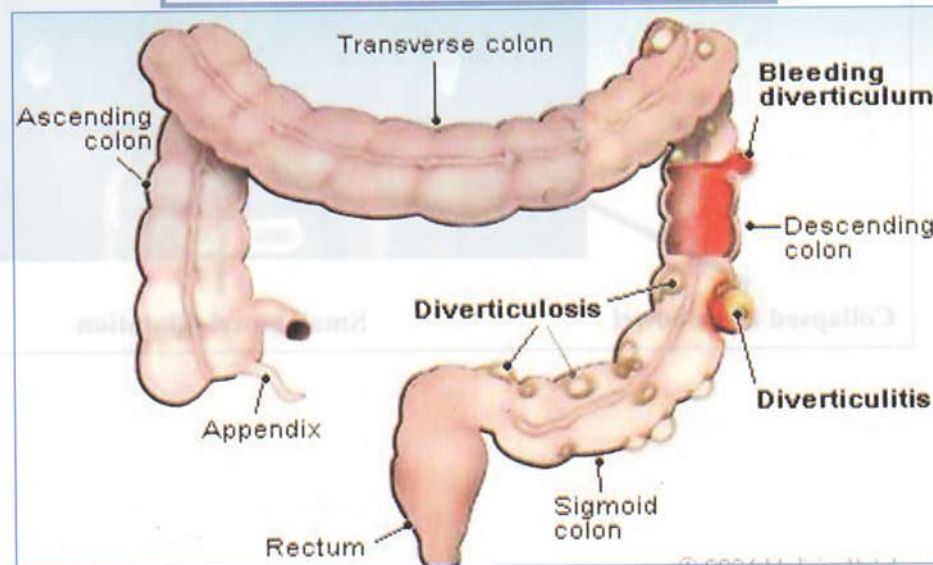
Diverticular disease of the colon



Diverticular disease of the colon



Diverticular disease of the colon





Complicated diverticulitis: Fistulas

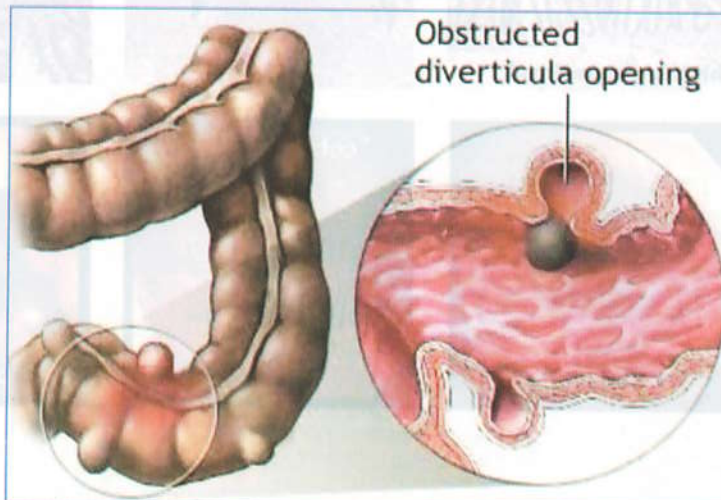


Barium enema



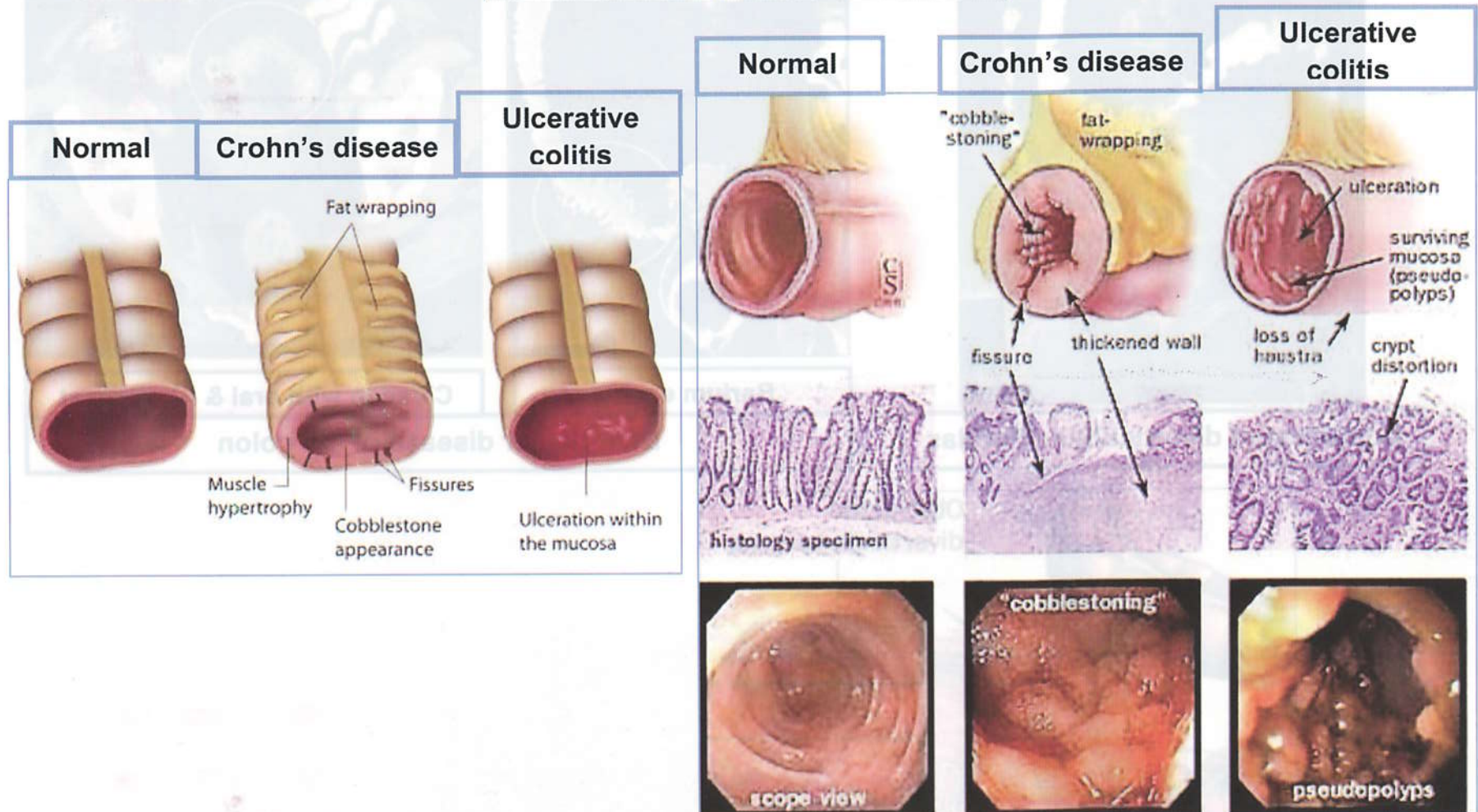
CT scan with oral & IV contrast

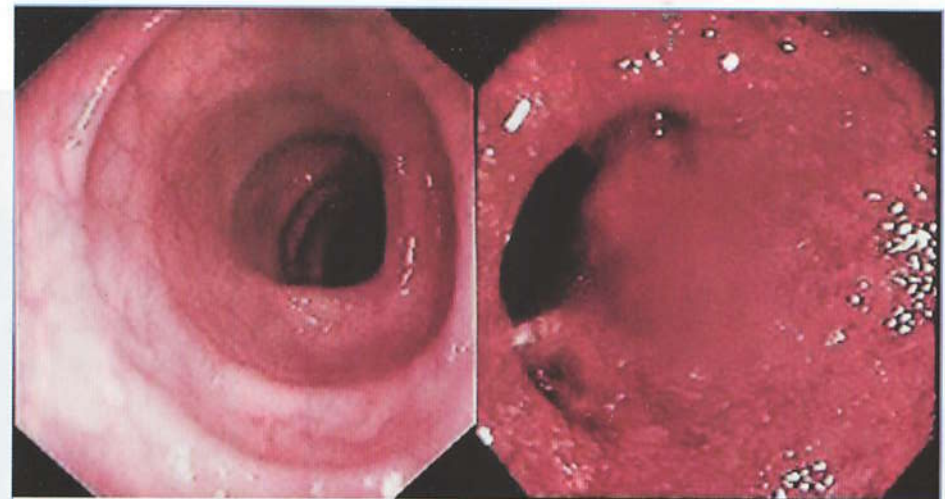
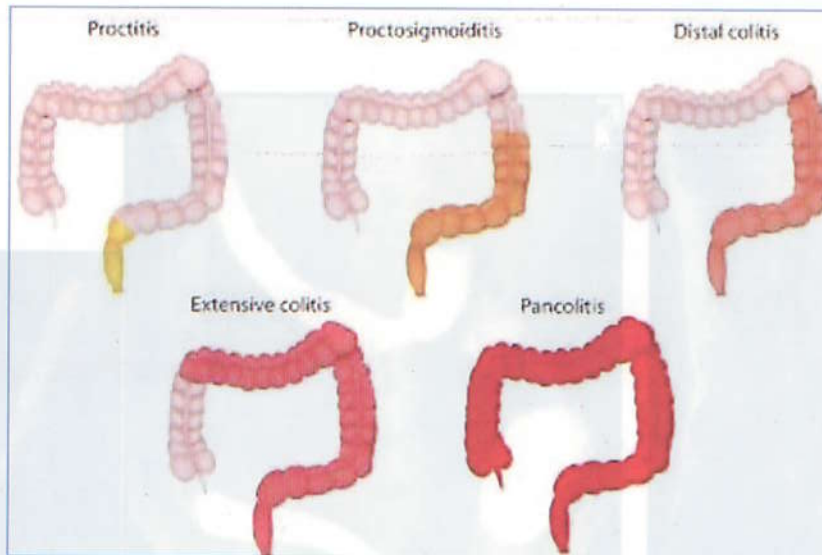
Diverticular disease of the colon



Obstructed diverticula

Inflammatory bowel disease



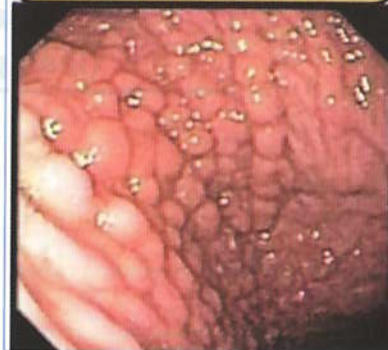


Healthy Colon

Ulcerative Colon

Ulcerative colitis

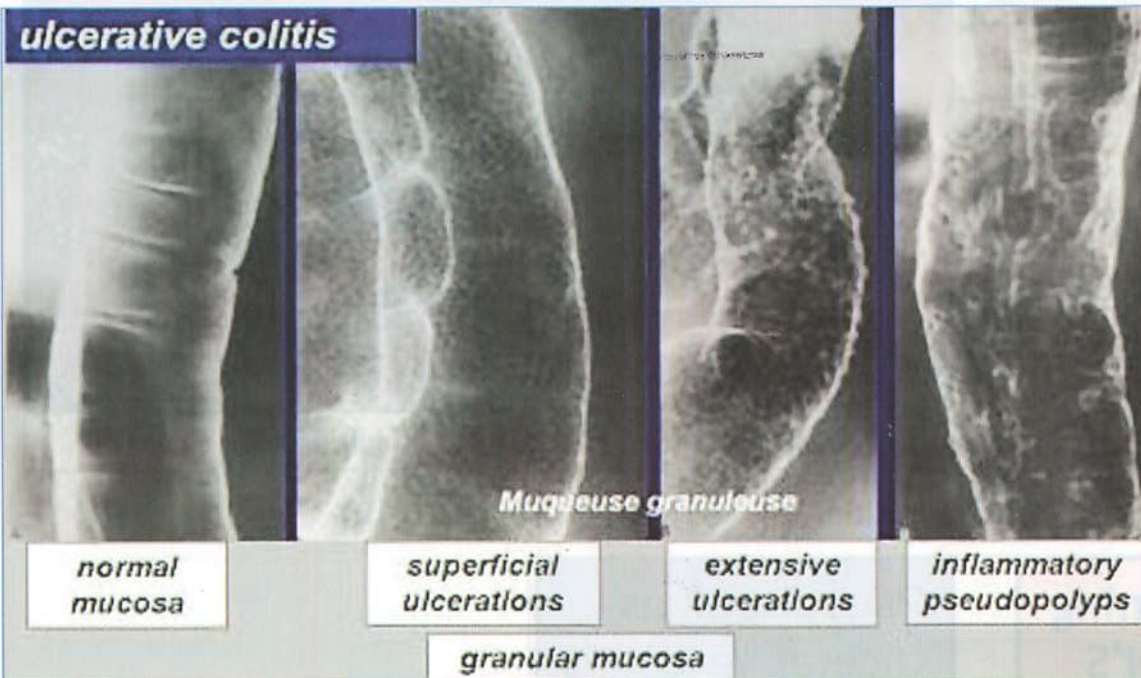
Cobble stoning
In CROHN'S



Pseudopolyps In
Ulcerative Colitis



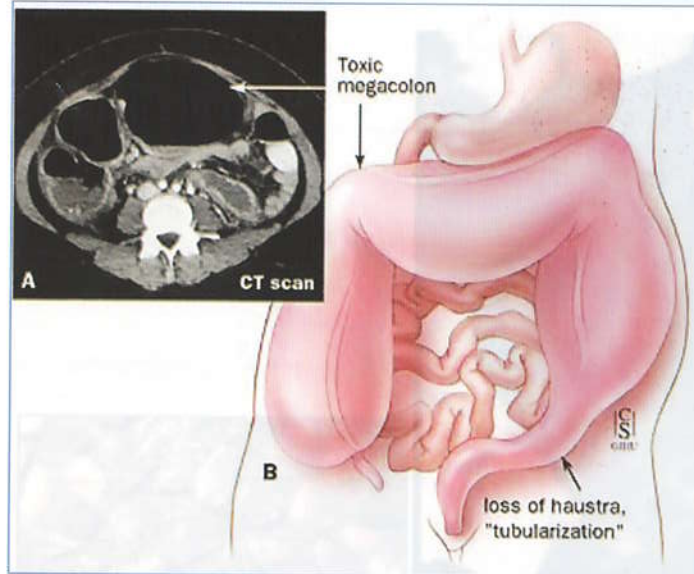
ulcerative colitis



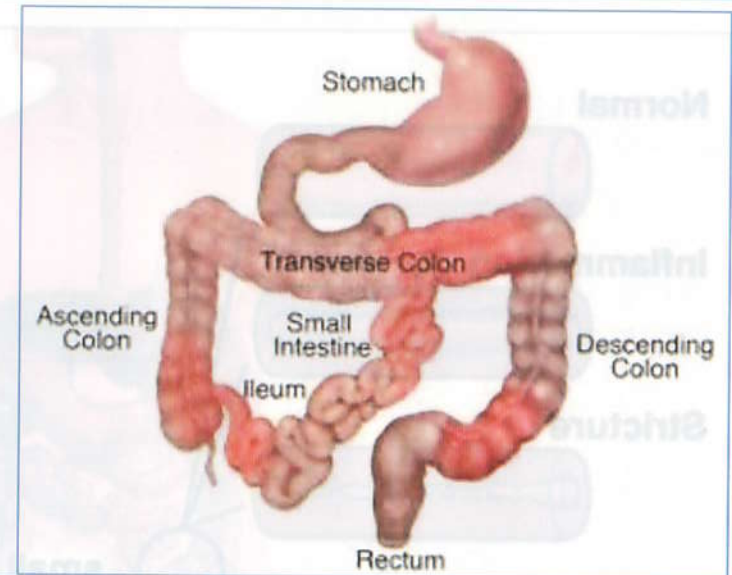
Barium enema



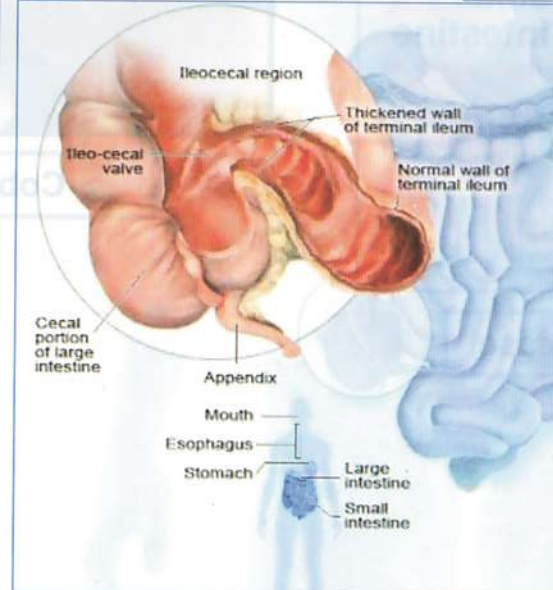
**Ulcerative colitis double contrast
barium enema
(lead pipe appearance)**



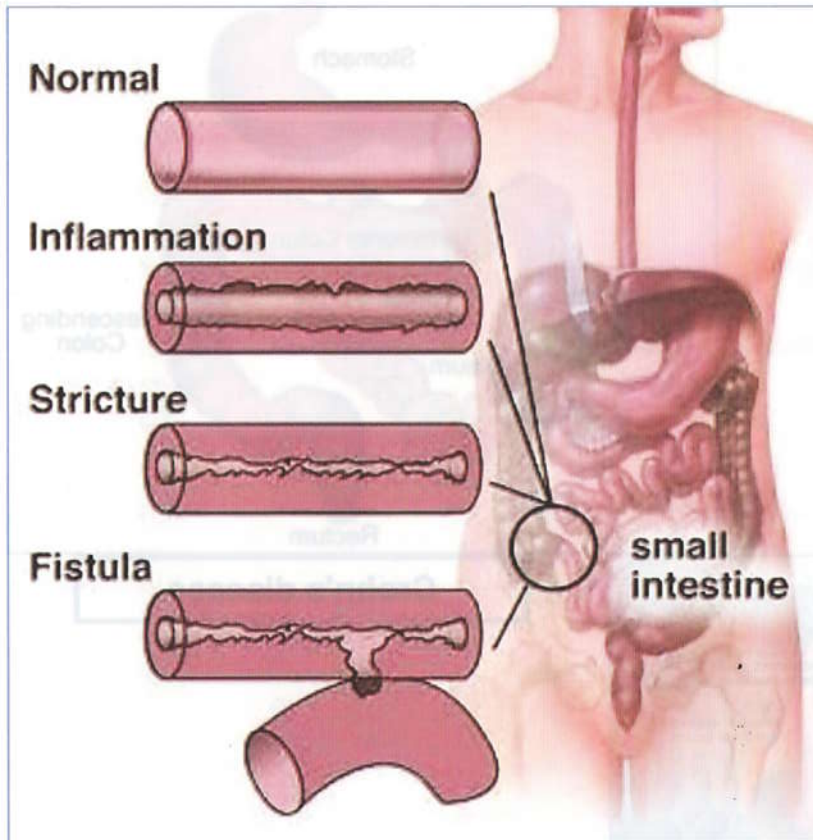
Toxic megacolon



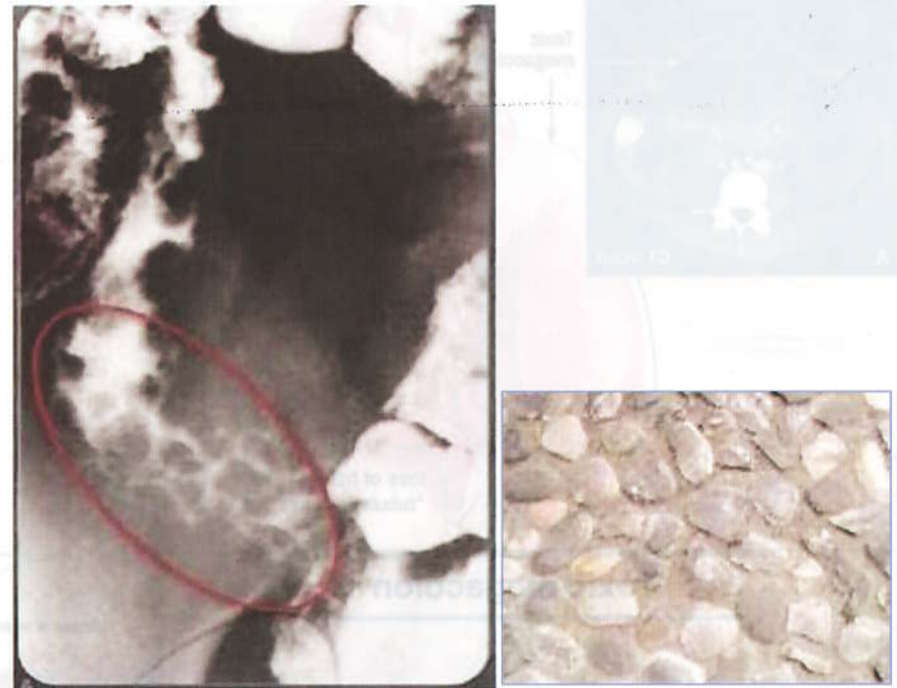
Crohn's disease



Crohn's disease



Complications of Crohn's disease

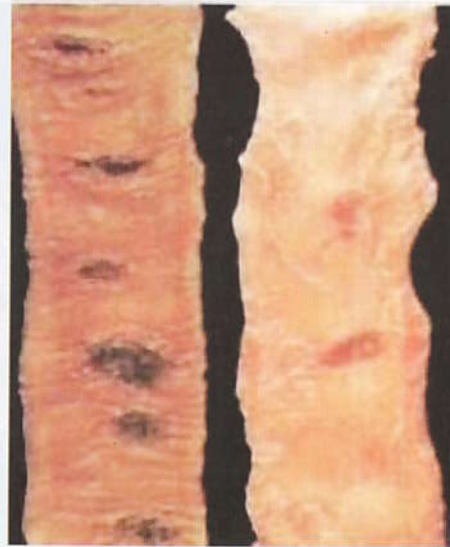


Cobblestone appearance in

T.B. of the intestine



T.B.intestine



T.B.

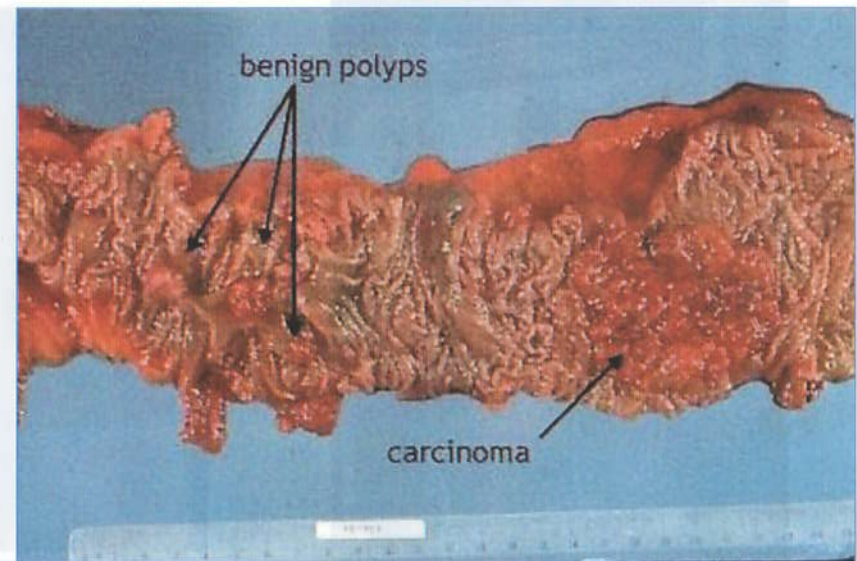
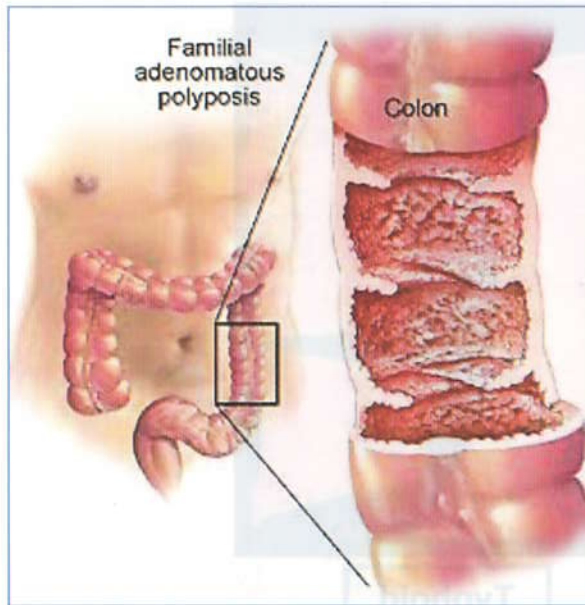


Typhoid

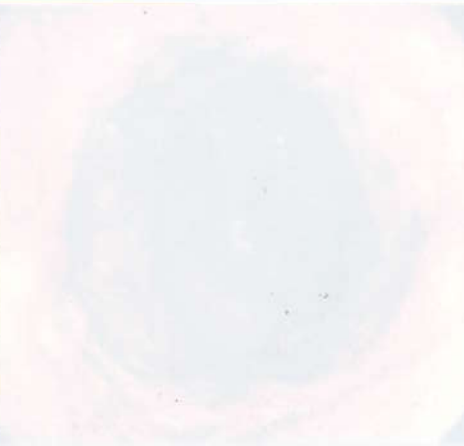


Intestinal tuberculosis
Transverse ulcer encircling the
entire lumen

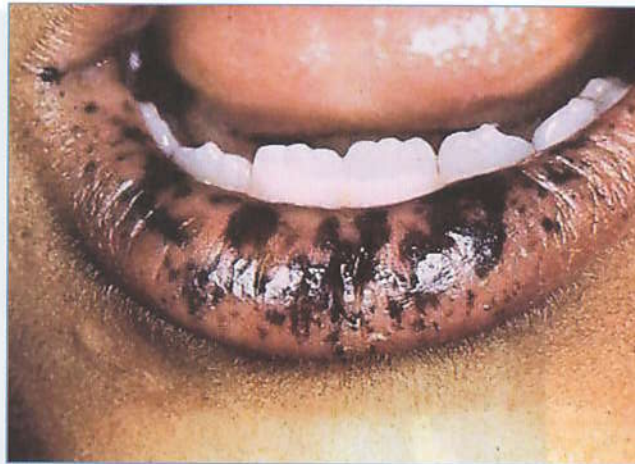
Familial polyposis coli



Familial adenomatous polyposis (FAP)



Peutz jeghers syndrome

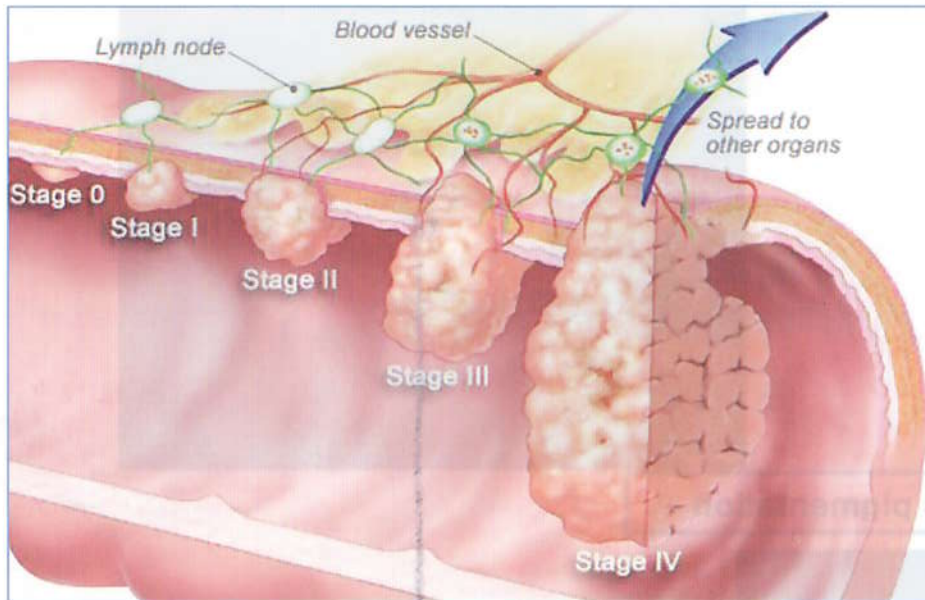


Mucocutaneous pigmentation



Polyps of peutz –jegher syndrome

Cancer colon



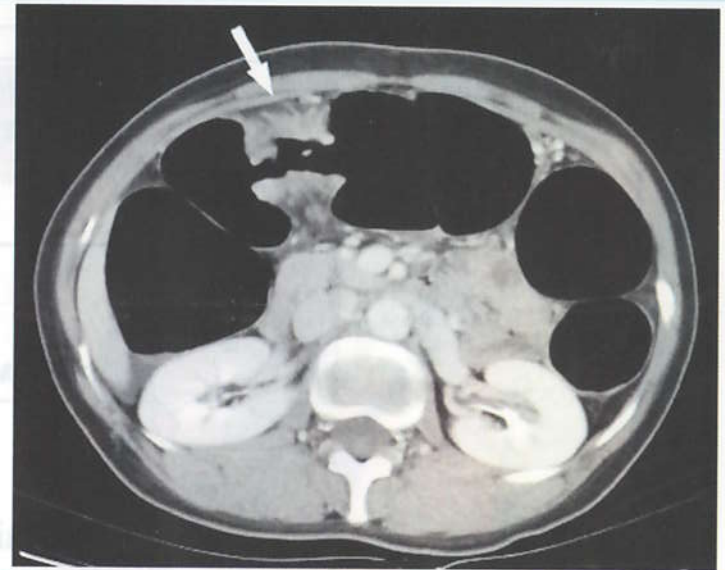
Cancer colon staging



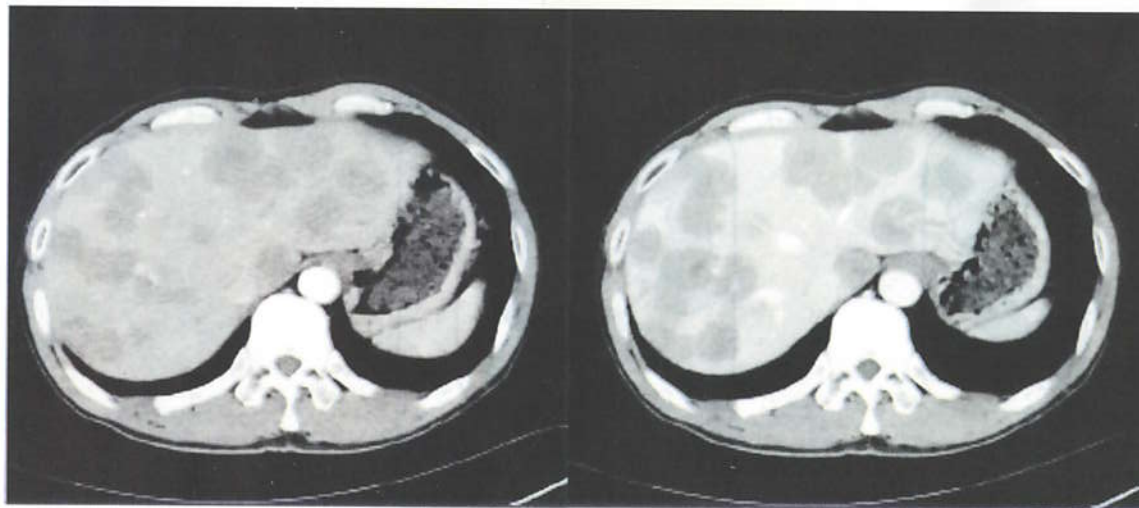
Barium enema: Cancer colon



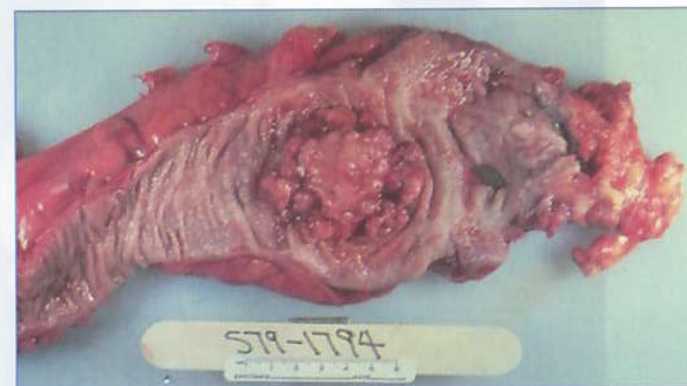
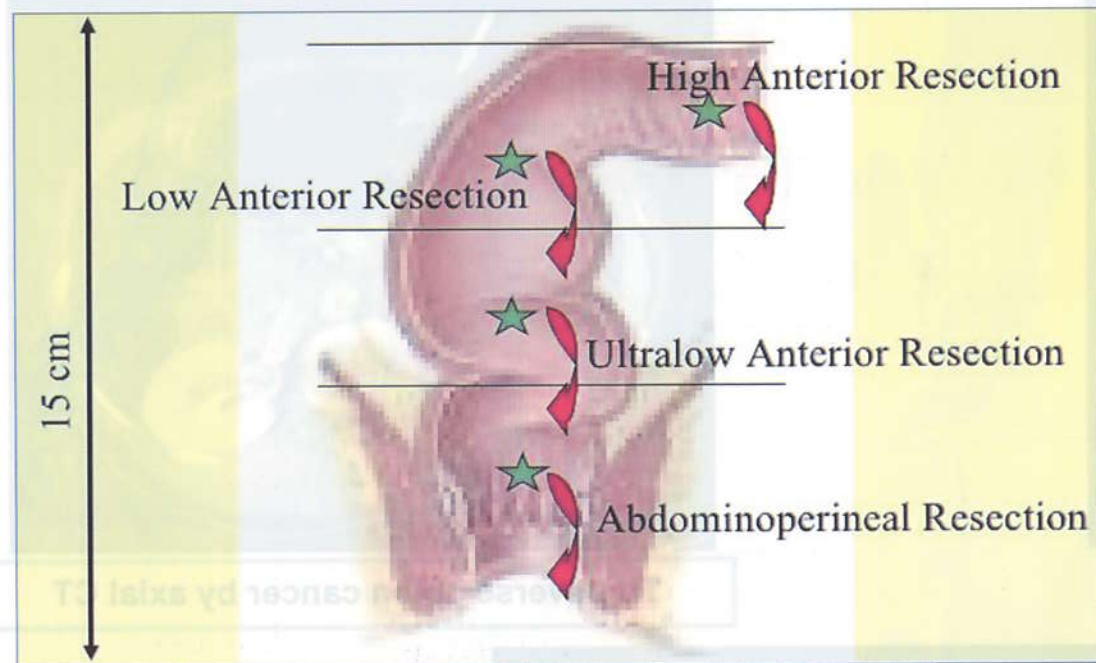
Cancer colon by endoscope



Transverse colon cancer by axial CT



Cancer colon
liver metastasis

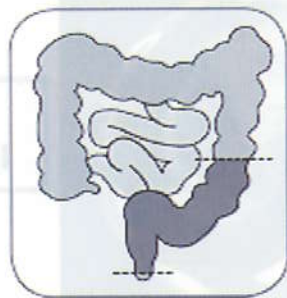


Cancer colon pathology

Cancer rectum management



anterior resection

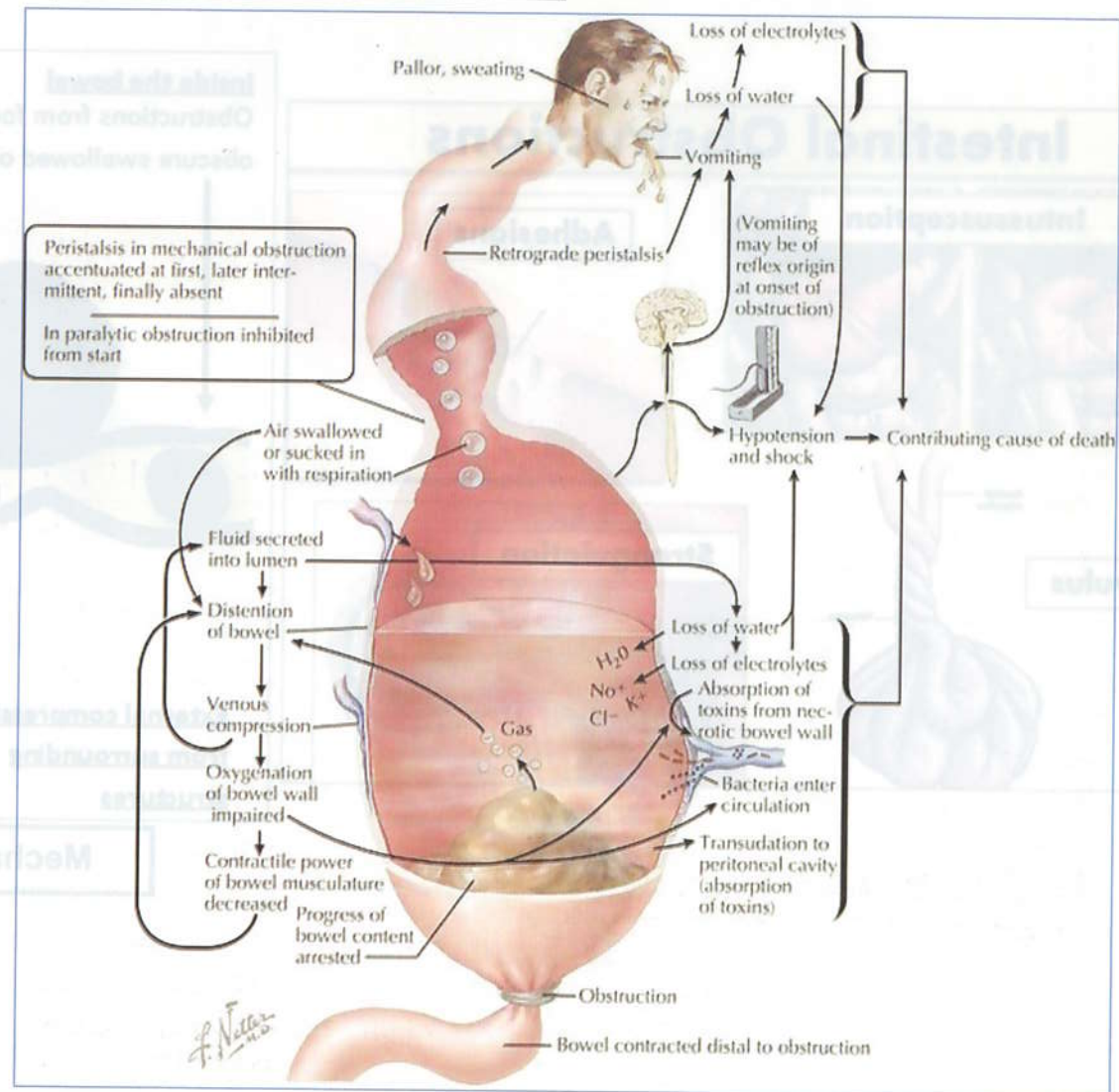
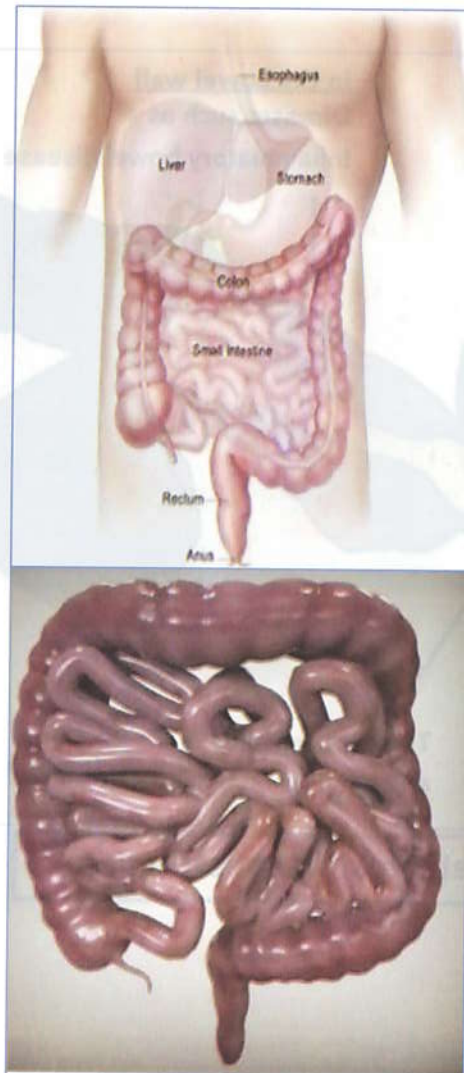


ultra-low anterior resection

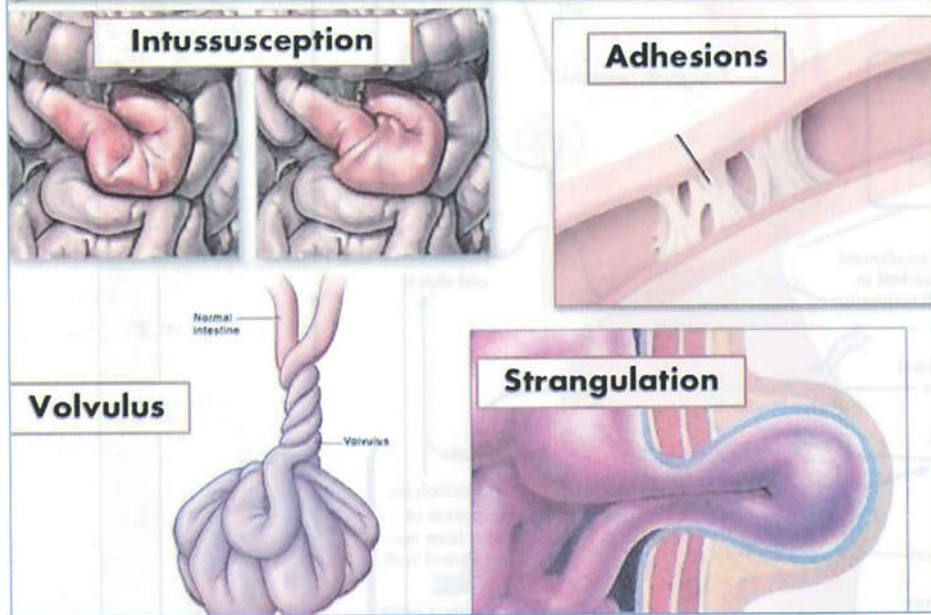


abdominoperineal (AP)
resection

Intestinal obstruction



Intestinal Obstructions

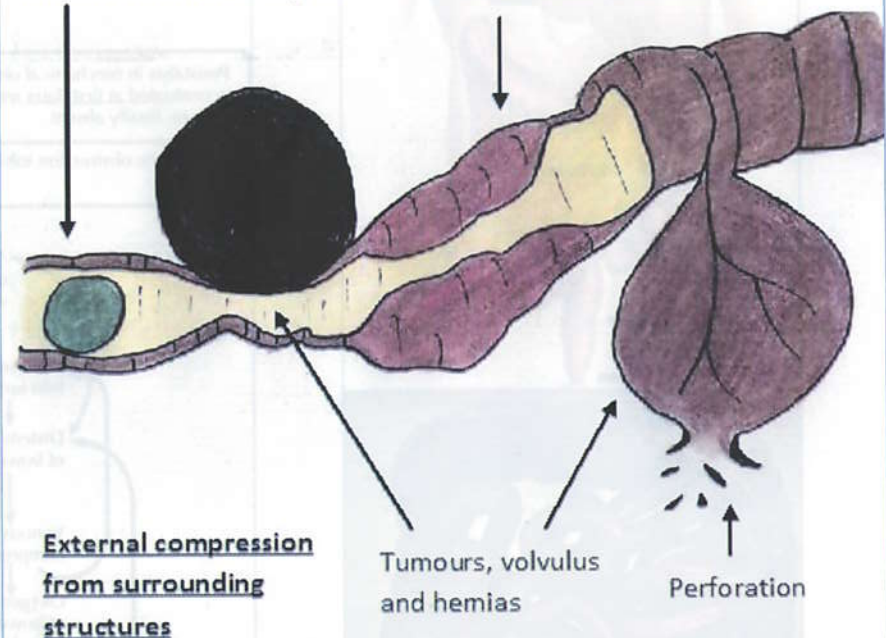


Inside the bowel

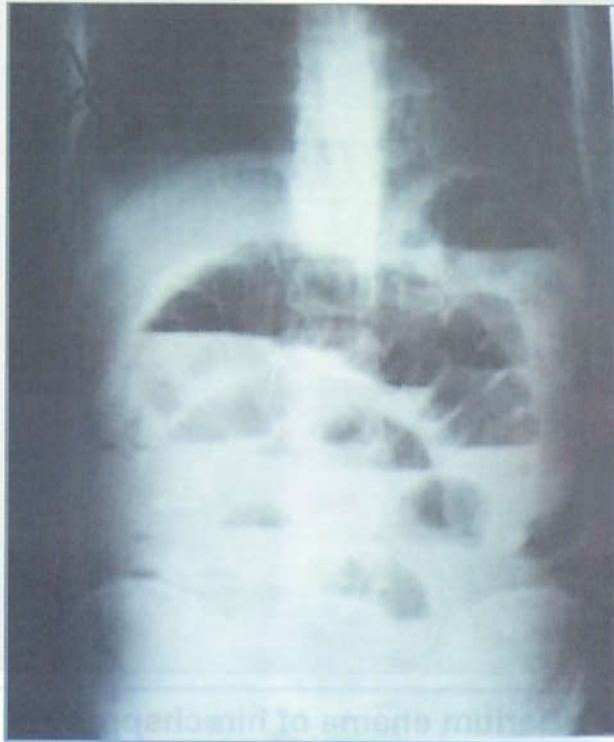
Obstructions from food to obscure swallowed objects

In the bowel wall

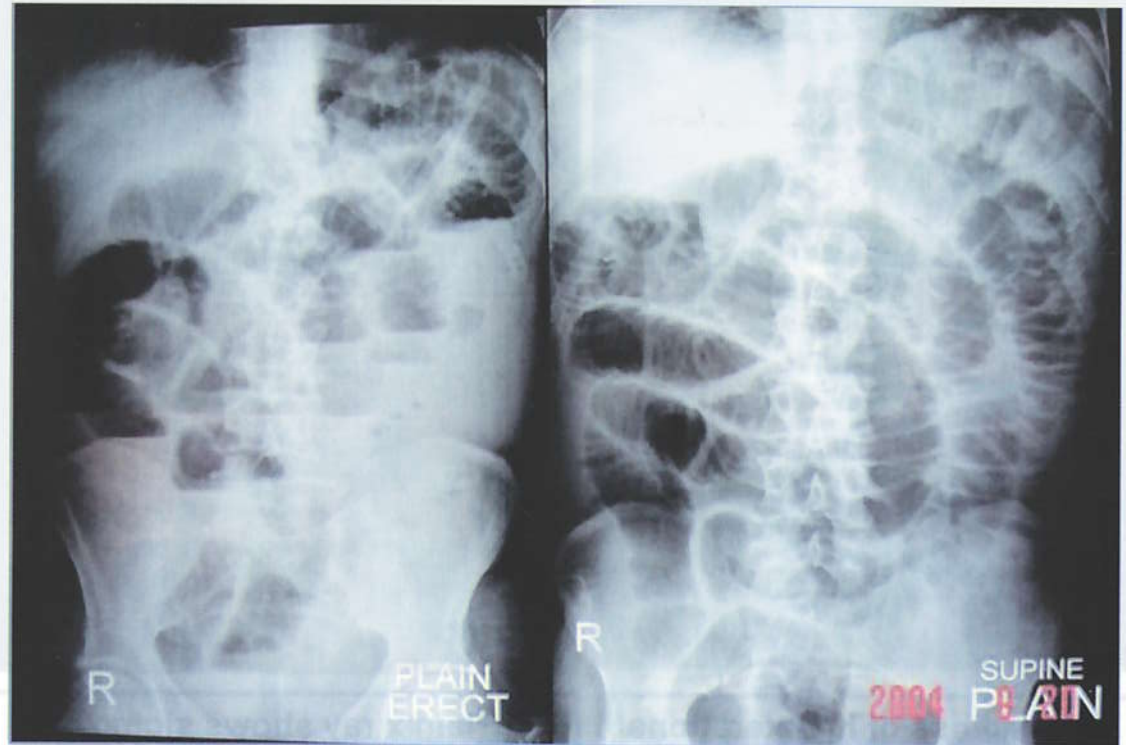
Diseases such as inflammatory bowel disease



Mechanical intestinal obstruction



X-ray erect shows multiple air fluid level



**Plain x ray of intestinal obstruction
(jejunal loop shows valvulae conniventes)**



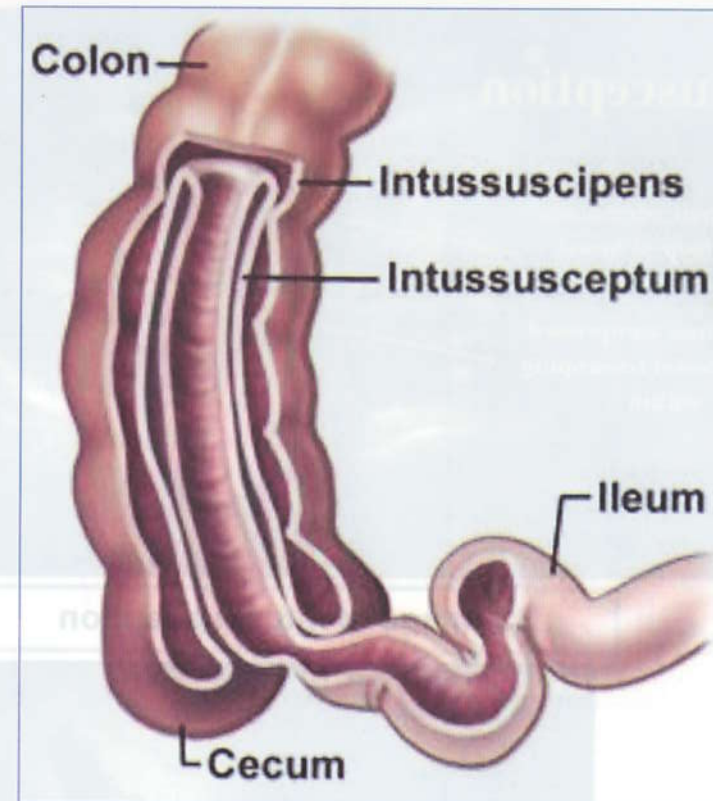
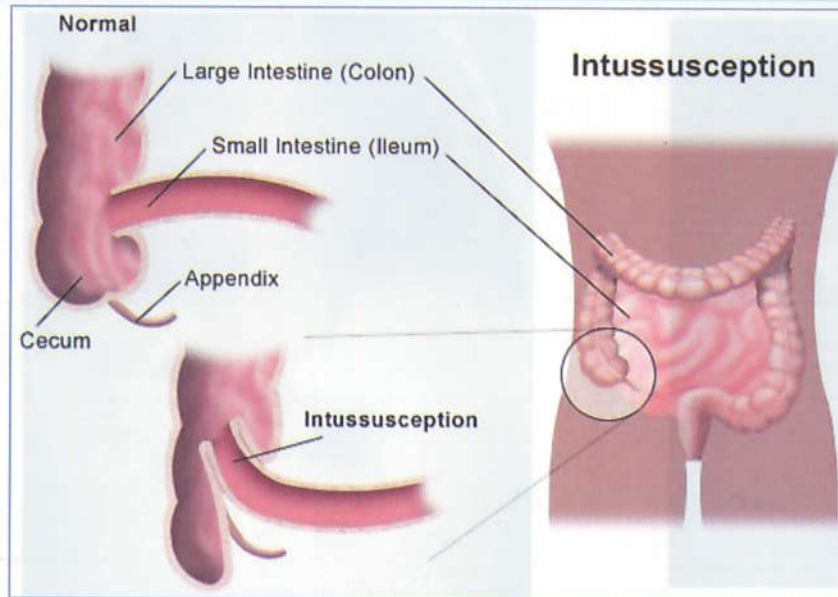
Colonic loss of haustrations



Plain x ray shows sigmoid
volvulus



Barium enema of Hirschsprung
disease

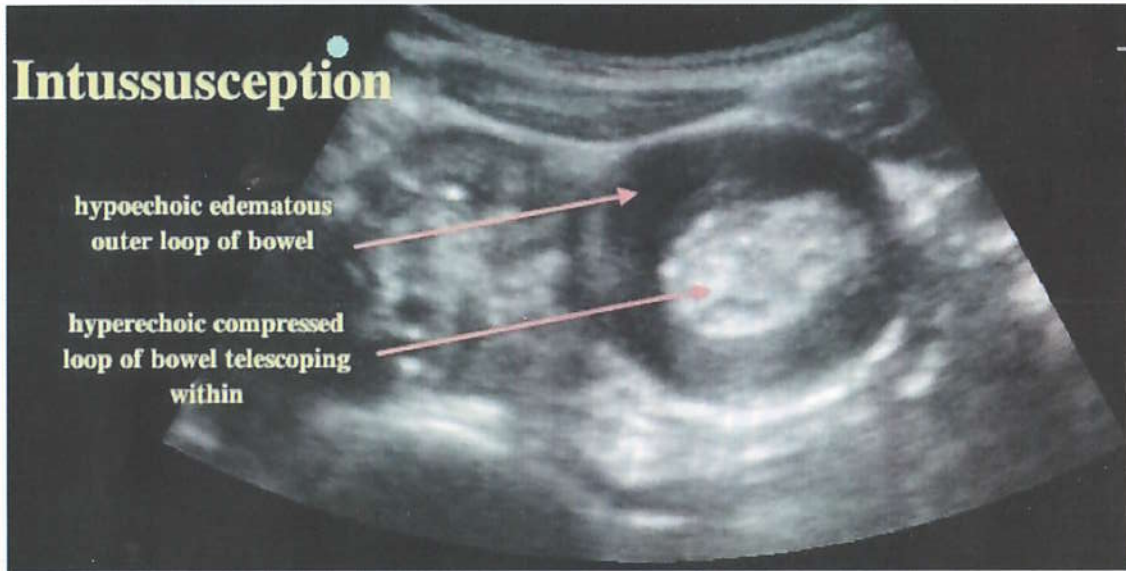


Barium enema shows claw sign of intussusception

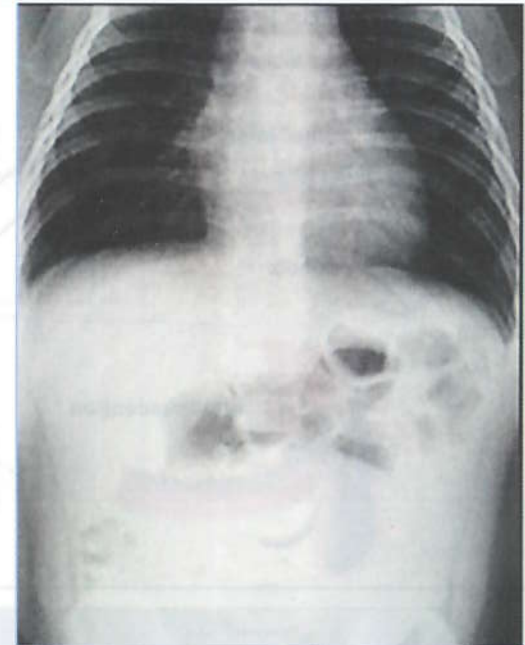
Intussusception

hypoechoic edematous
outer loop of bowel

hyperechoic compressed
loop of bowel telescoping
within

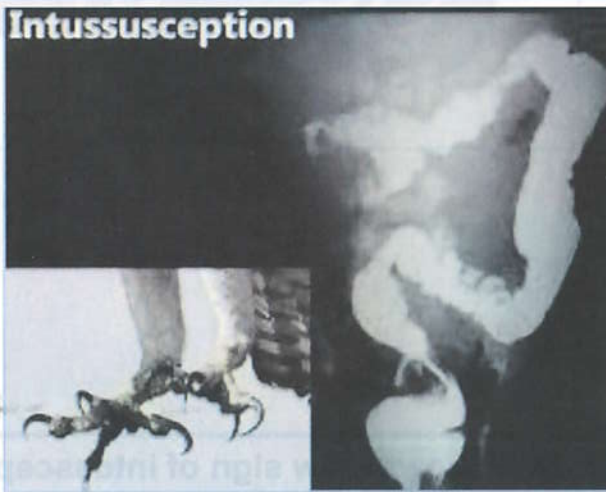


US image of intussusception



Abdominal X-ray showing
intussusception

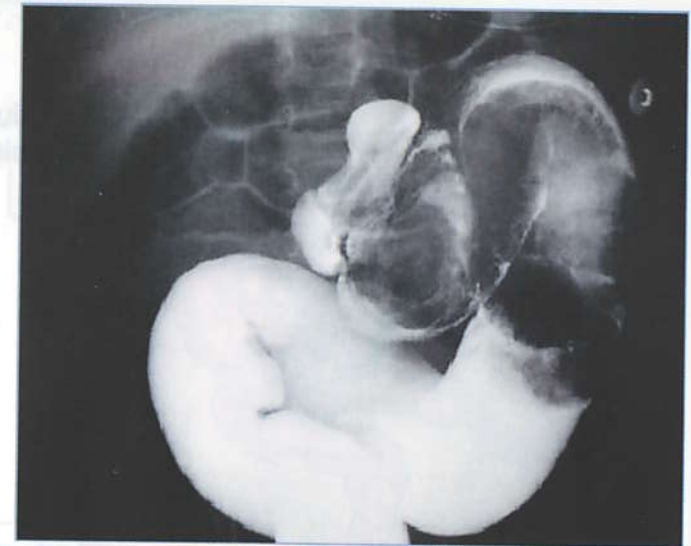
Intussusception



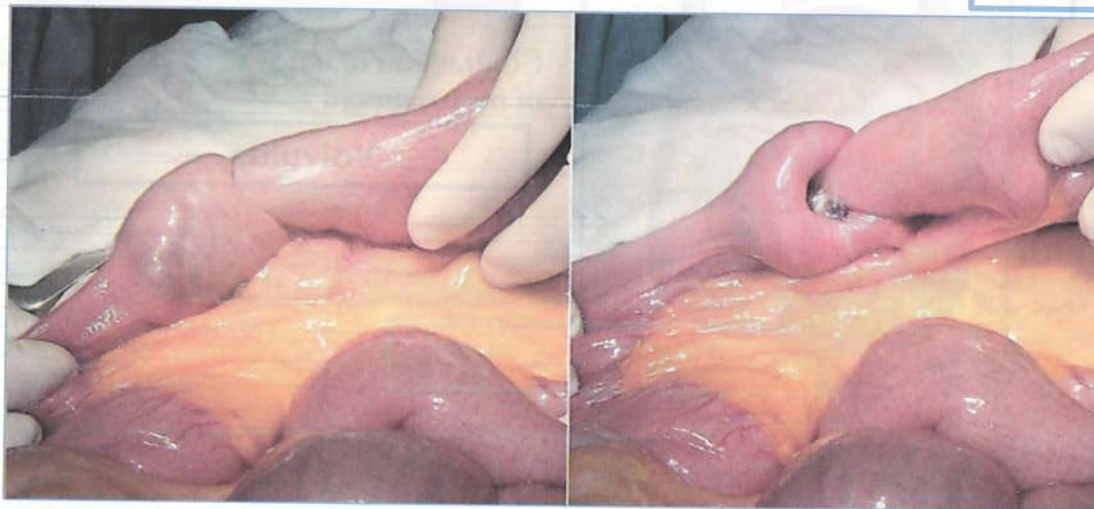
Claw sign of intussusception



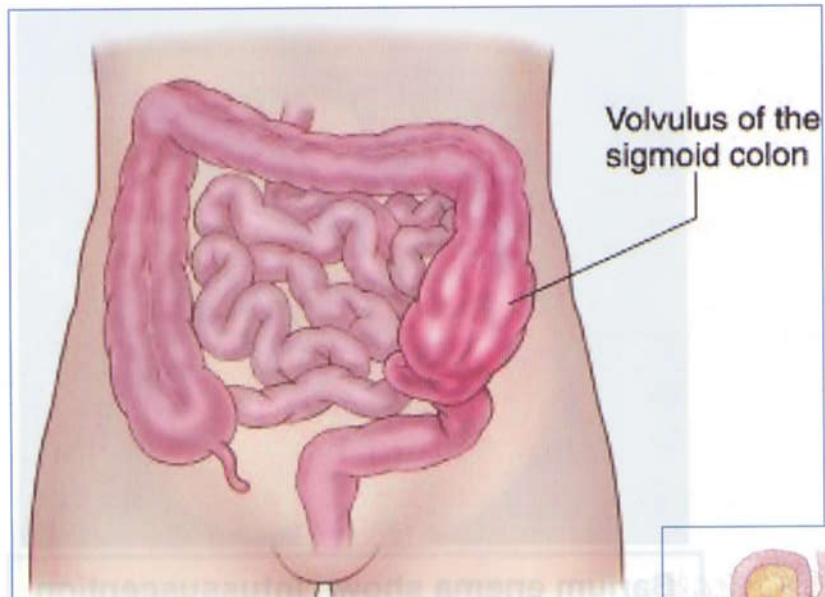
Coil spring sign of intussusception



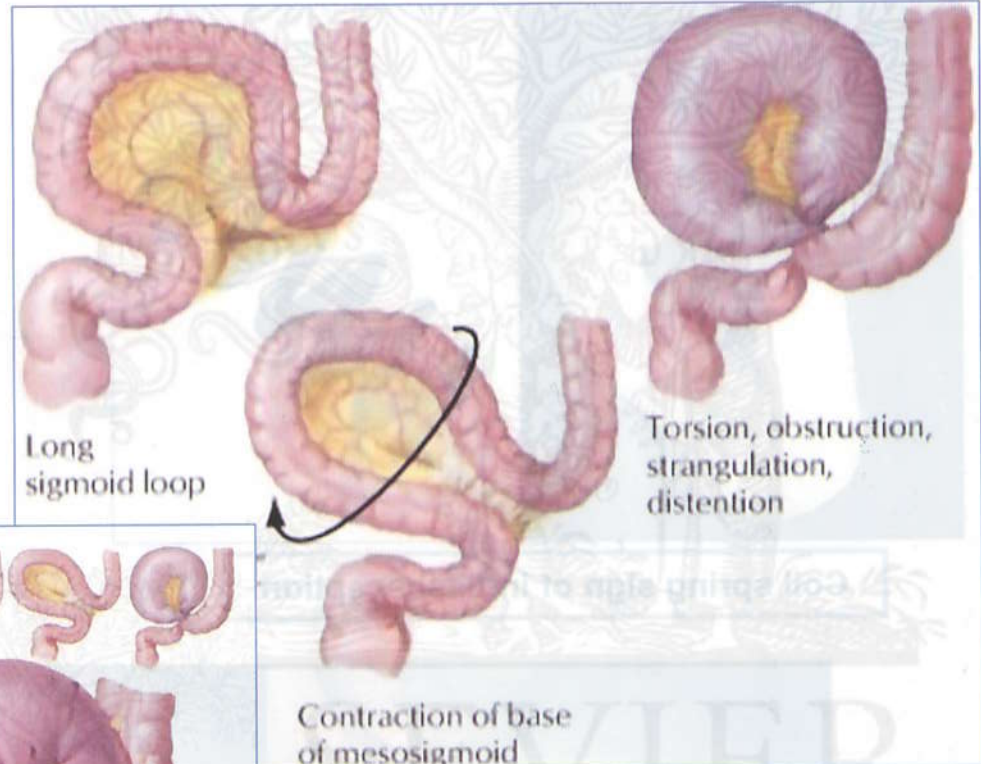
Barium enema shows intussusception in the descending colon



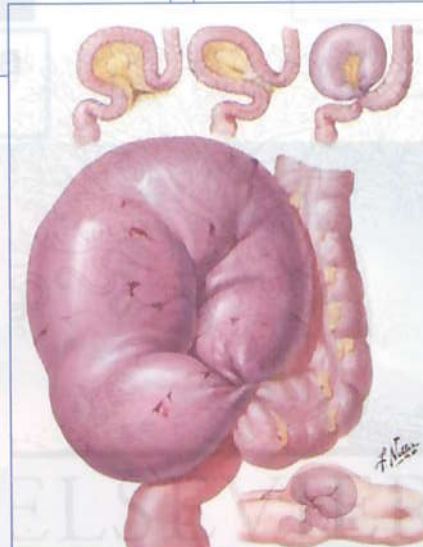
Intussusception management



Volvulus



Volvulus

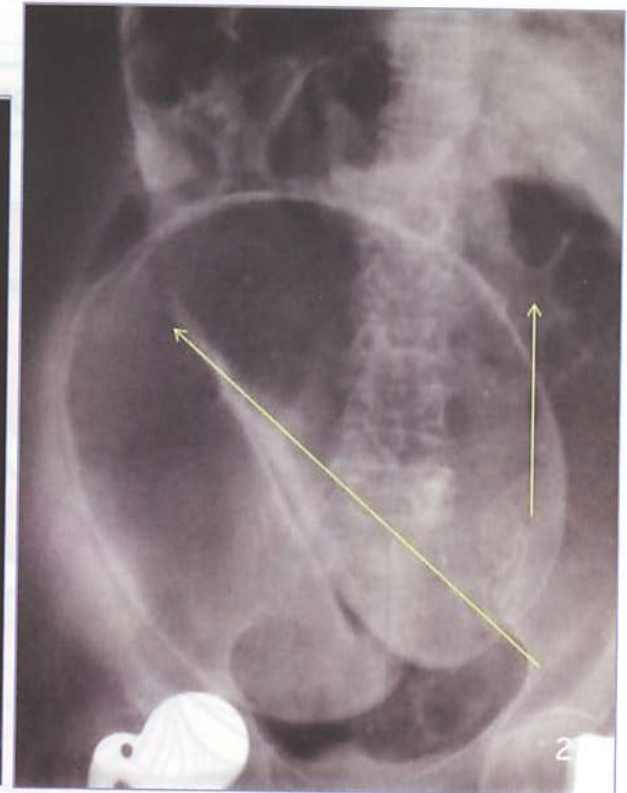


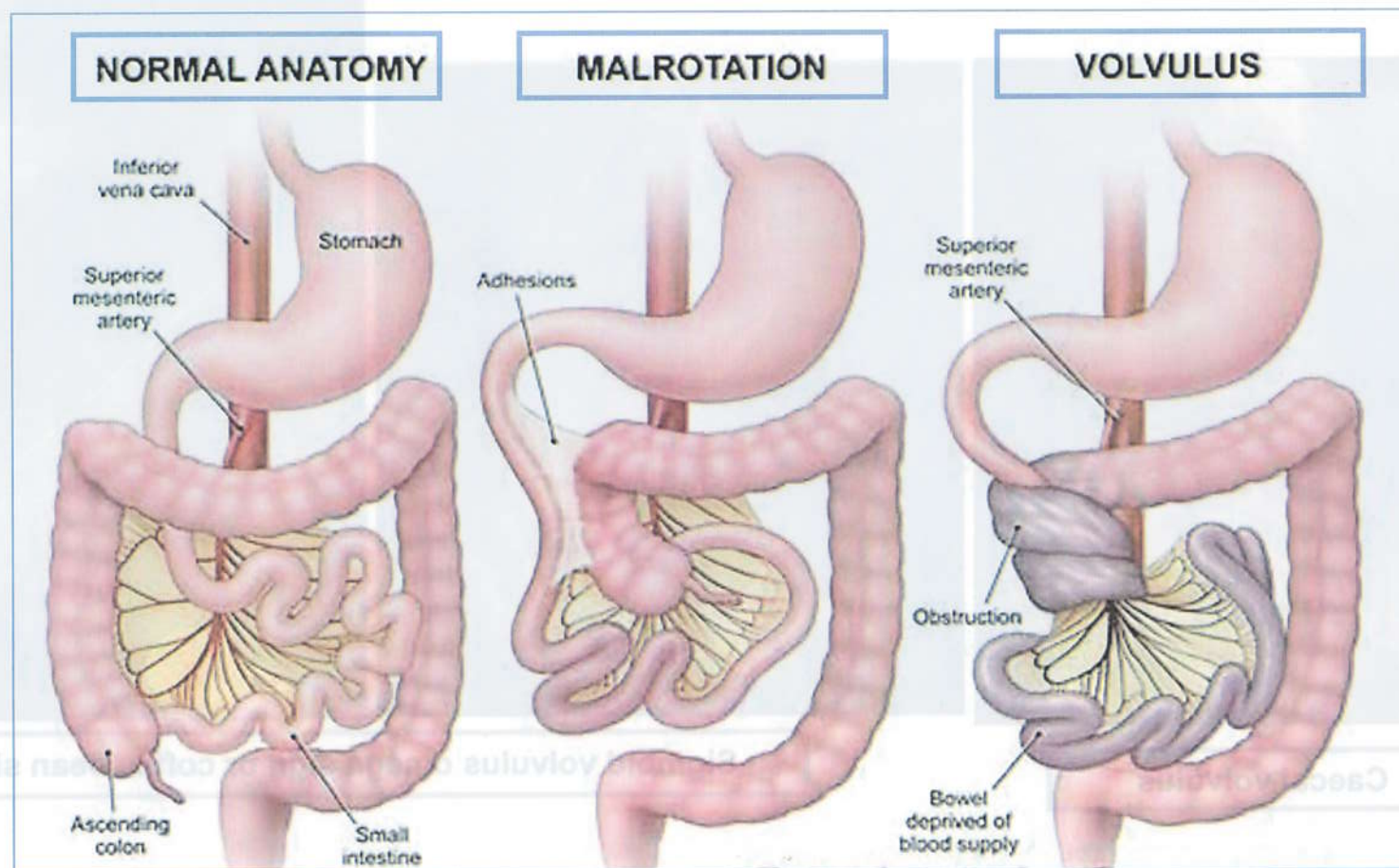


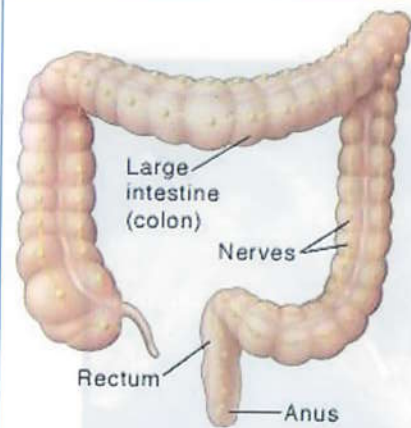
Caecal volvulus



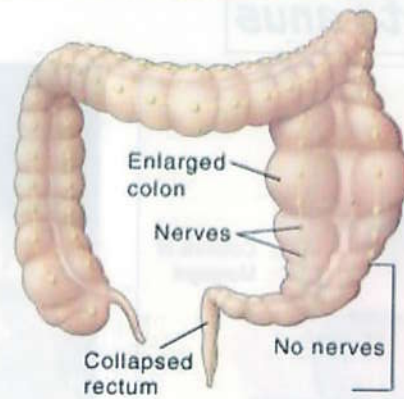
Sigmoid volvulus omega sign or coffee bean sign





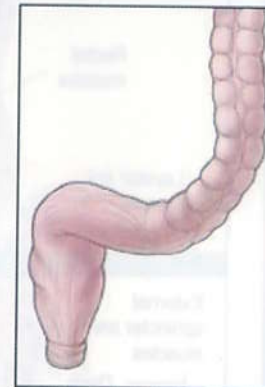


Normally, nerves tell the colon, rectum, and anus to work together to push waste out of the body.

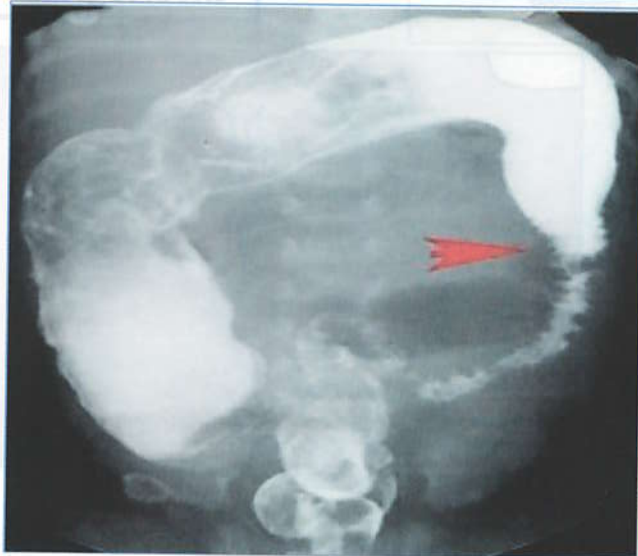
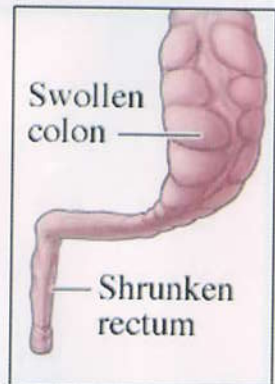


With Hirschsprung's disease, a section of colon is missing nerves. Waste backs up behind this section.

Normal colon and rectum

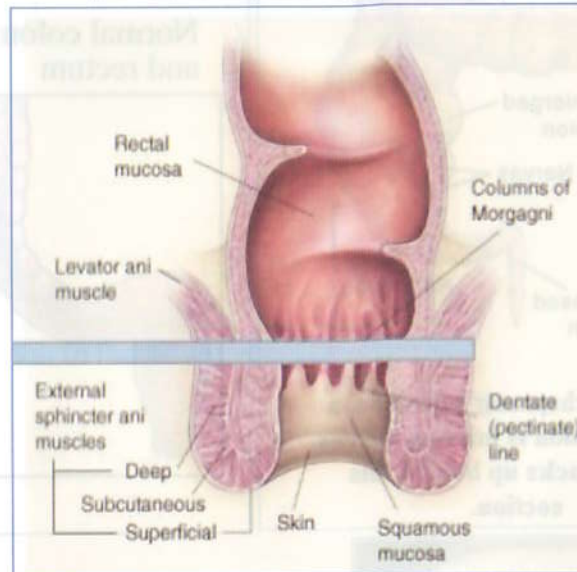
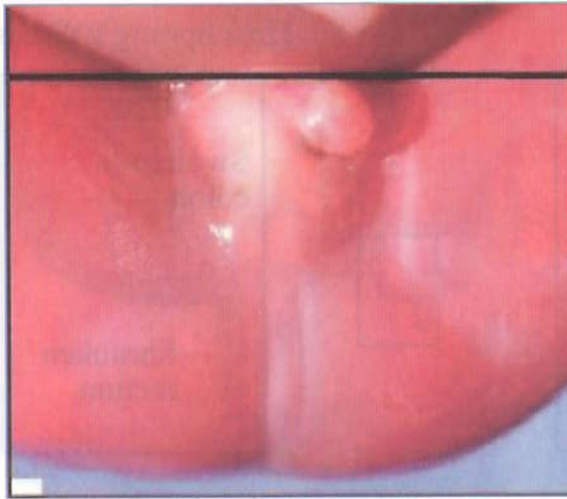


Hirschsprung's disease

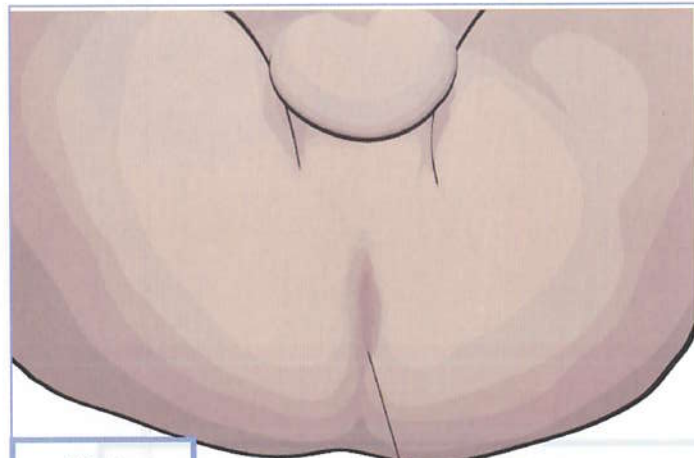


Barium enema: hirschsprung's disease

Imperforate anus

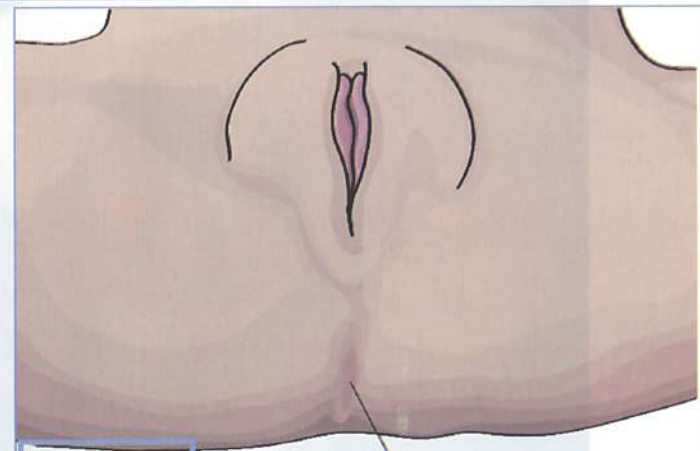


Invertogram



Male

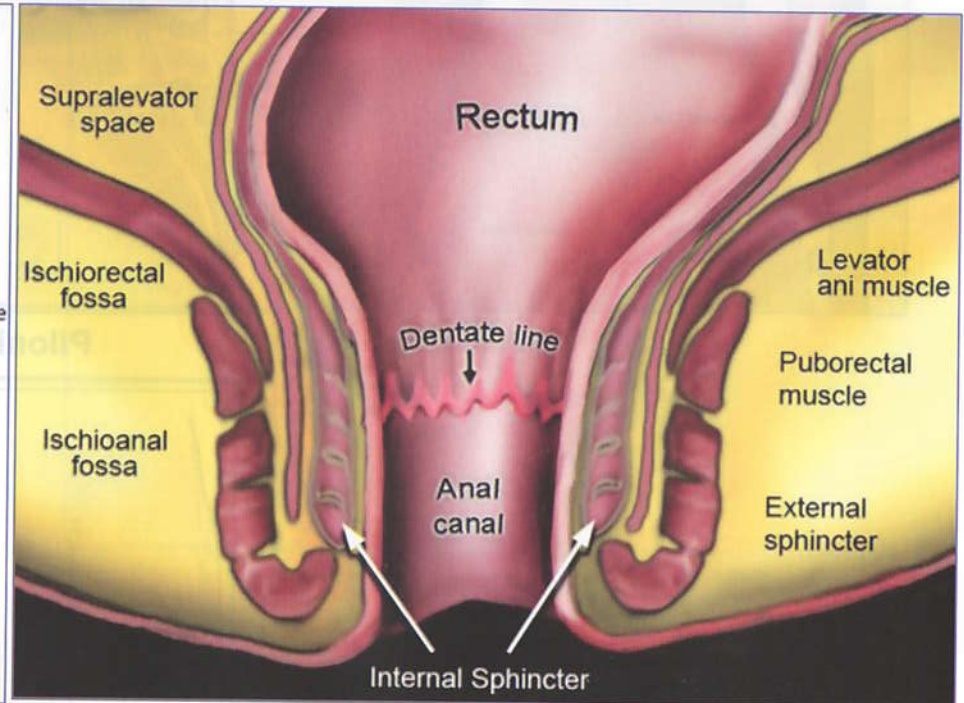
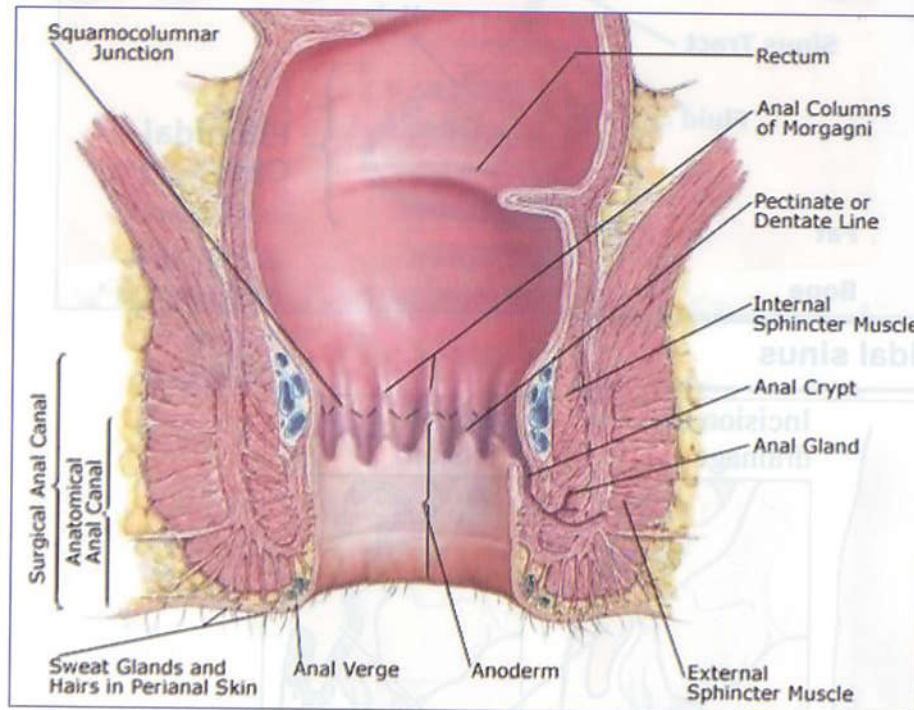
Missing anal opening — covered in skin



Female

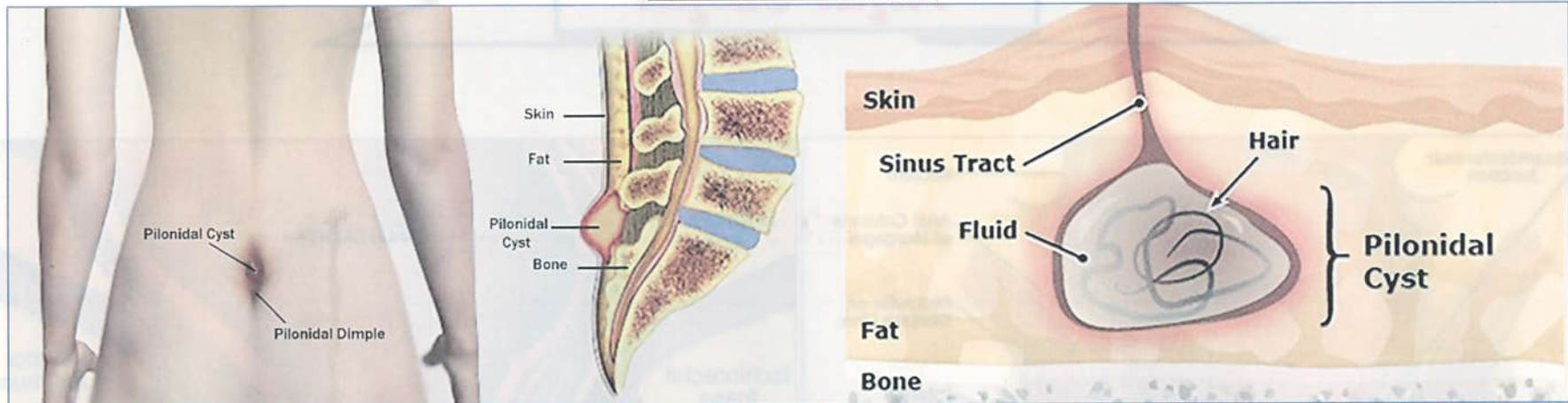
Missing anal opening — covered in skin

Anal Canal

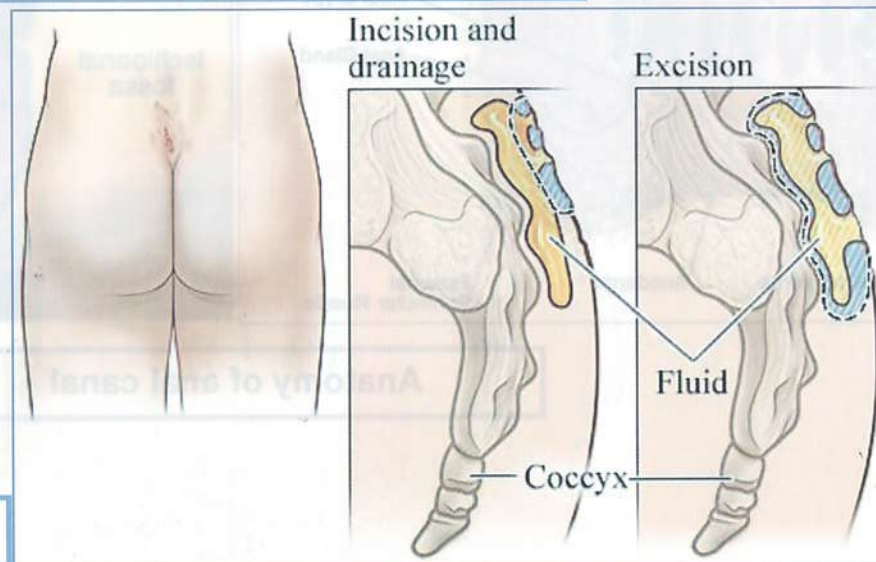


Anatomy of anal canal

Pilonidal sinus

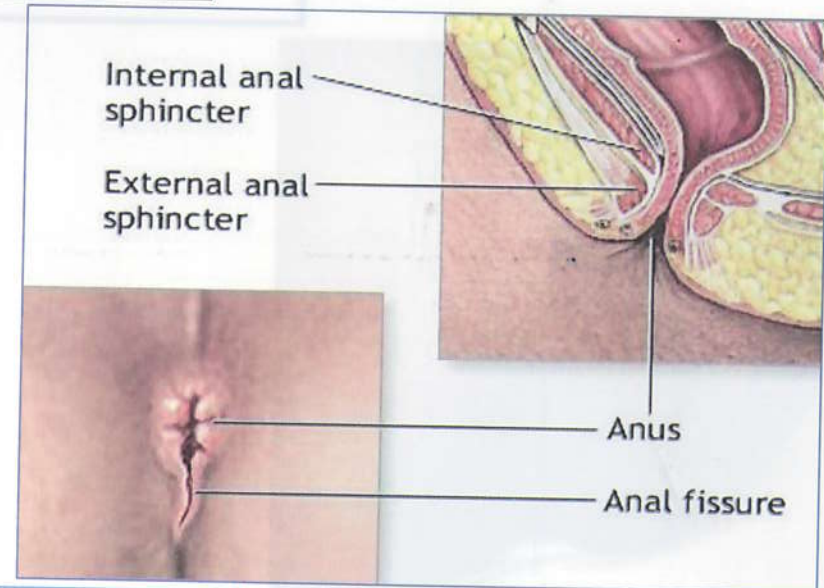
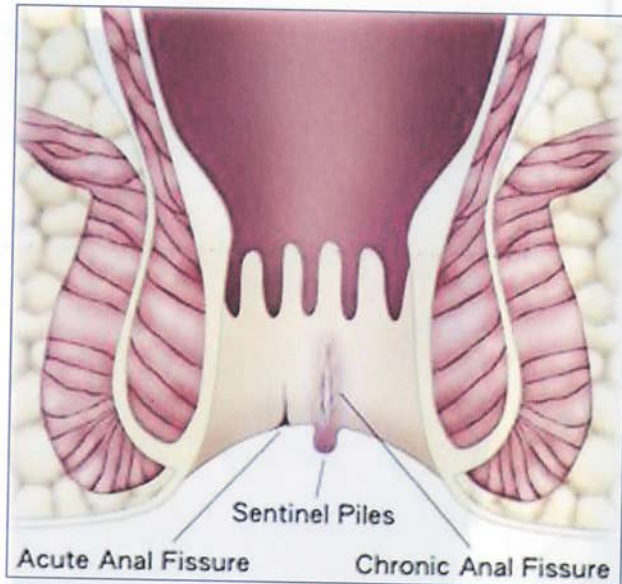


Pilonidal sinus



Treatment of Pilonidal sinus

Anal fissure & fistula

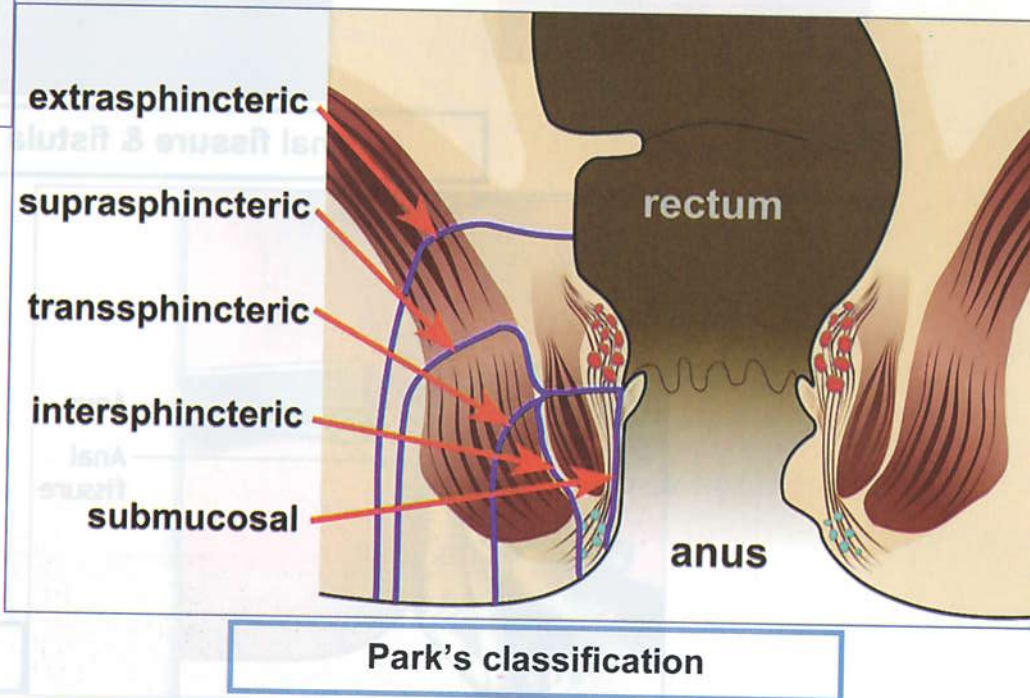
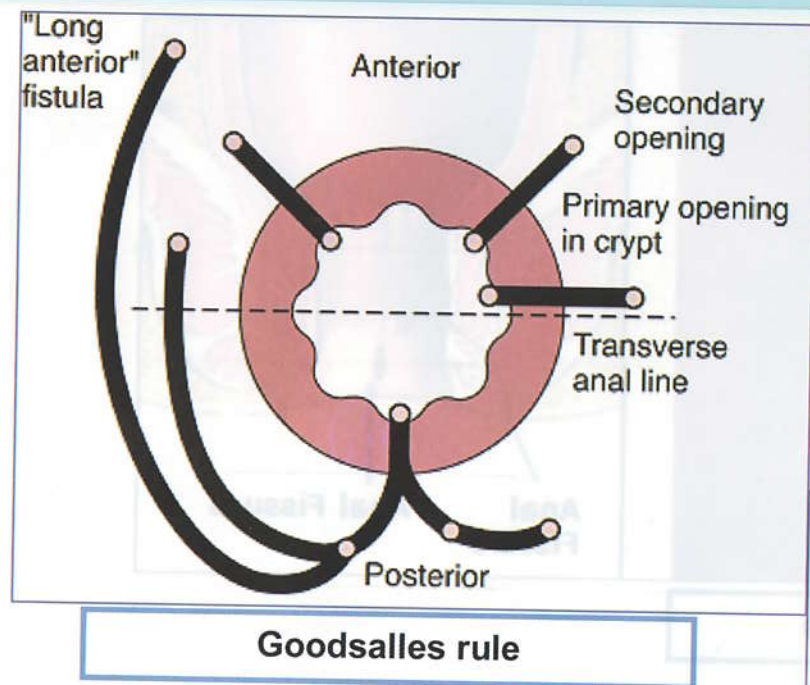


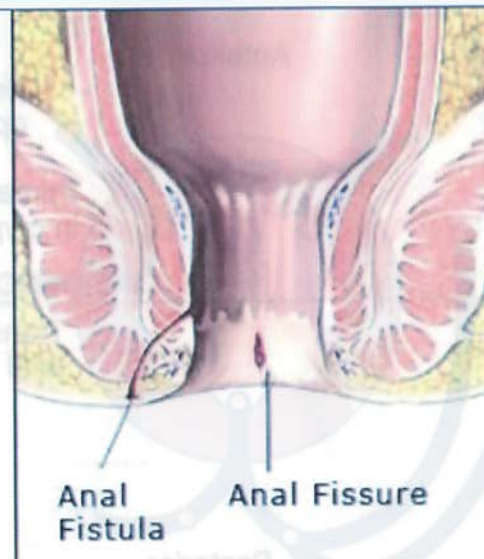
Anal fissure



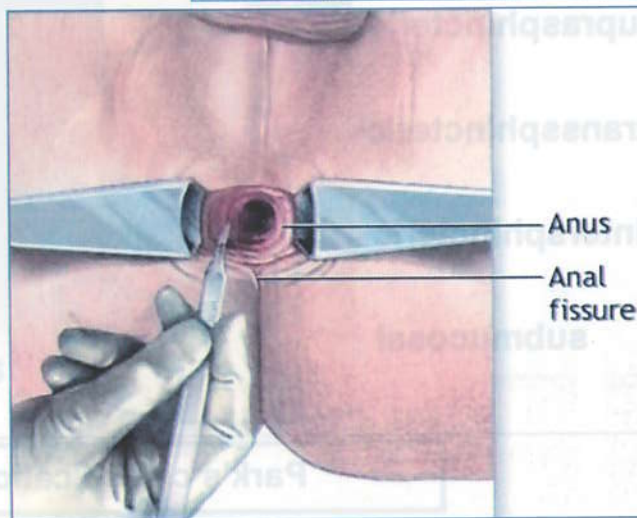
Anal fistula





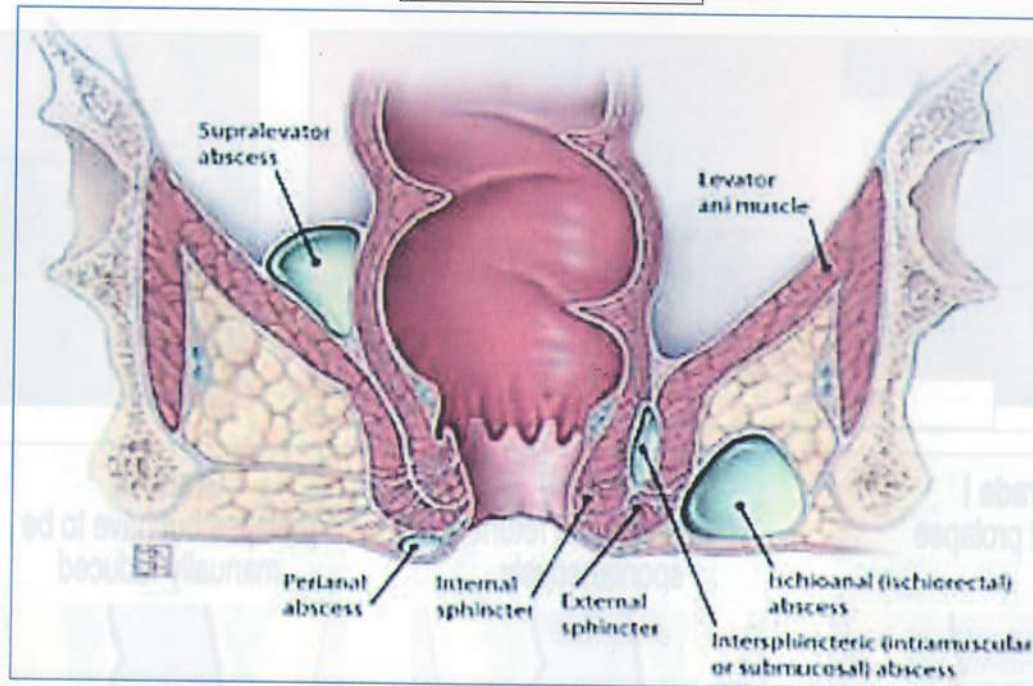


Anal fissure & fistula



Lateral internal sphincterotomy

Anal abscess



Anorectal abscess



Hemorrhoids (Piles)

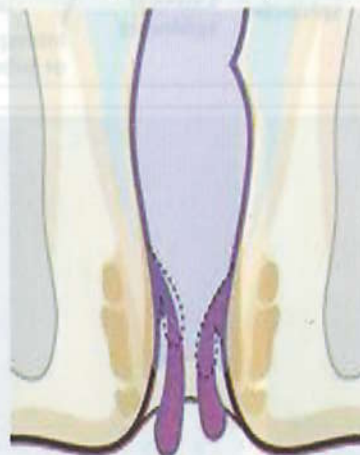


Piles

Grade I
do not prolapse



Grade II
prolapse but return
spontaneously



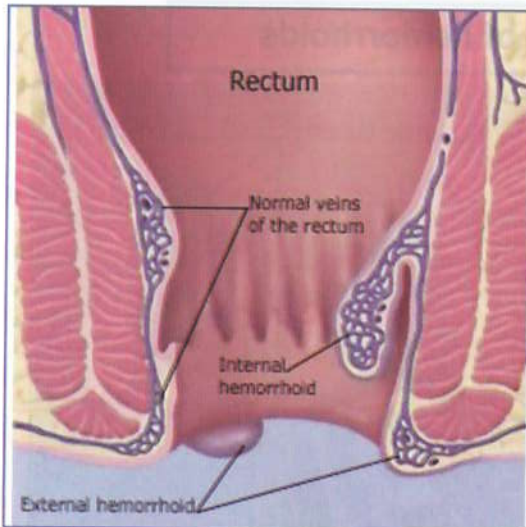
Grade III
prolapse but have to be
manually reduced



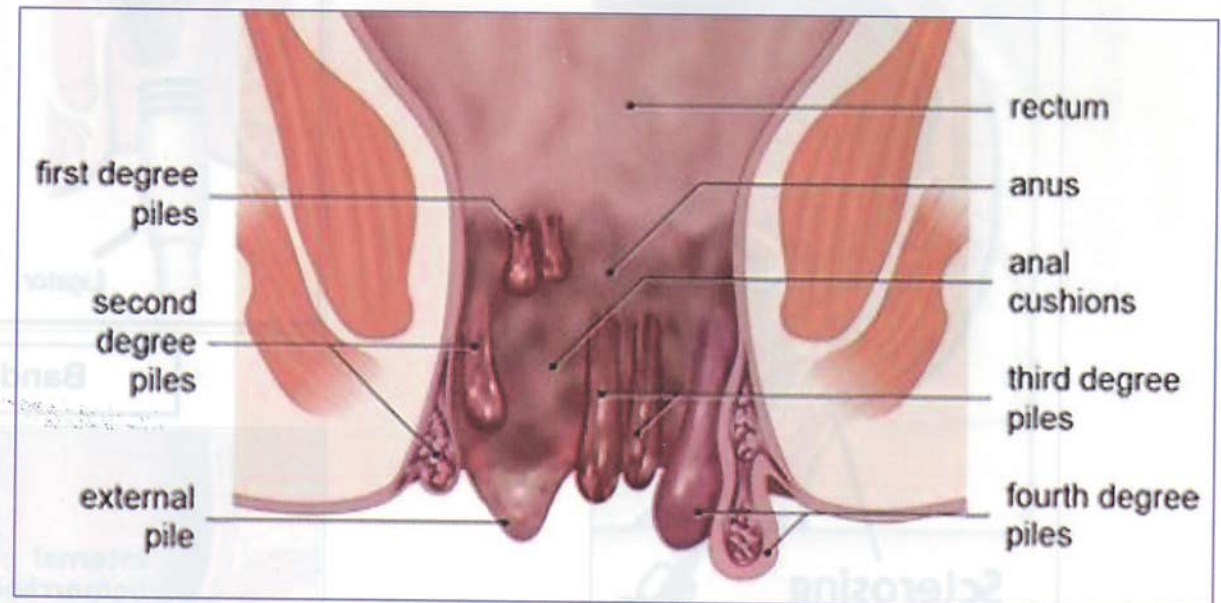
Anorectal
abscess



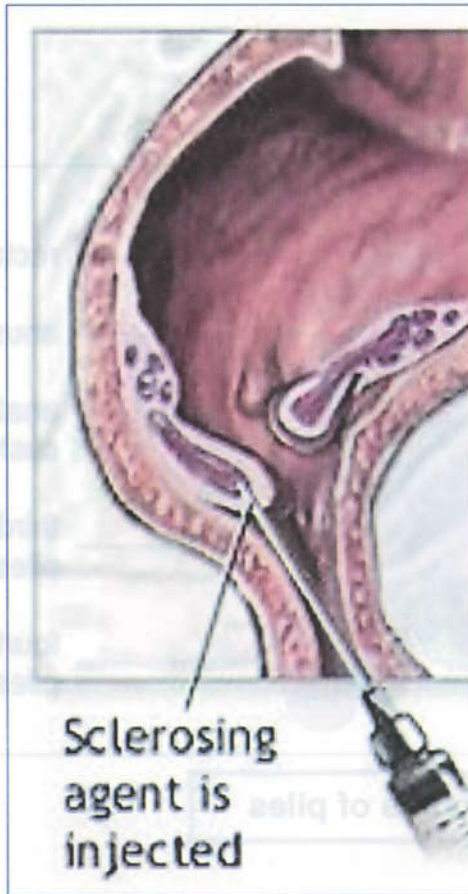
Chronic external piles



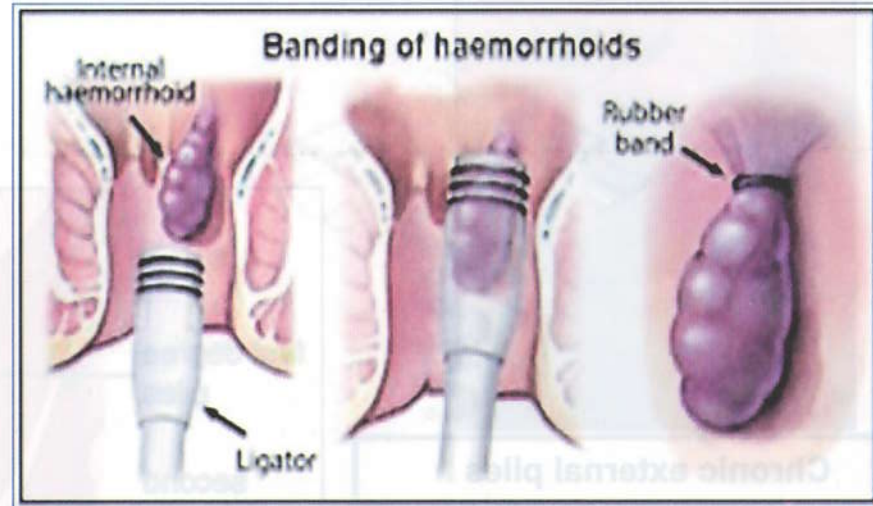
Haemorrhoids



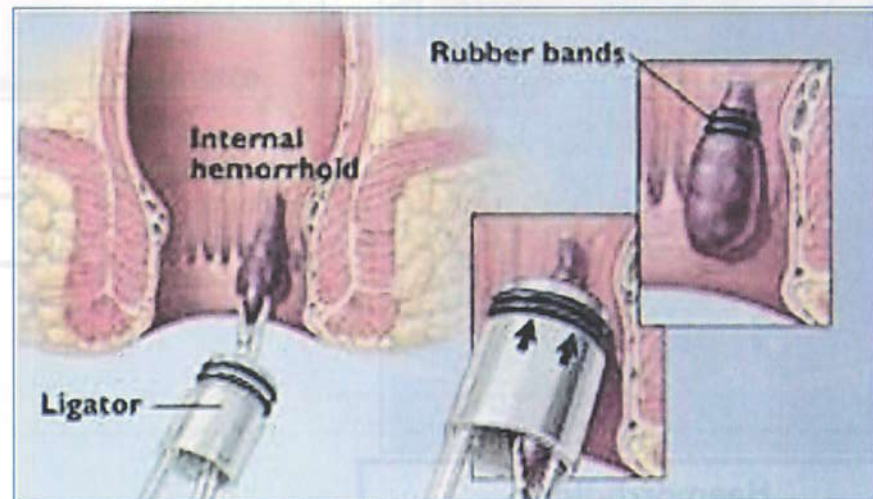
The different grades of piles



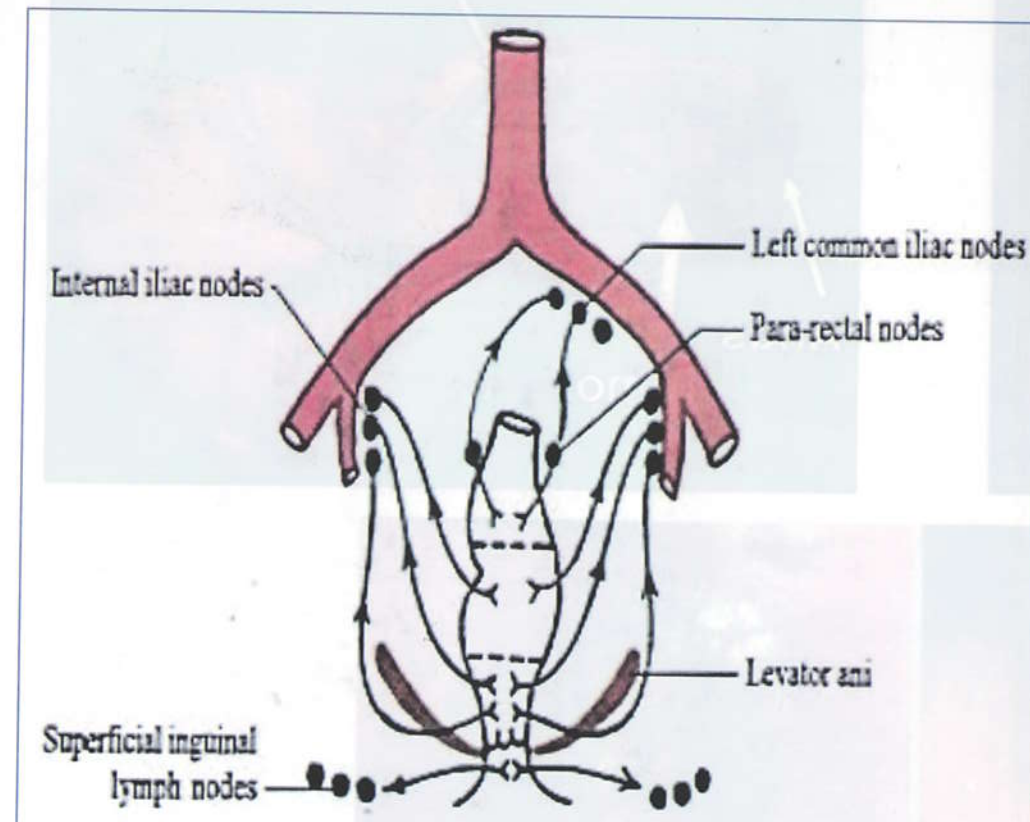
Injection sclerotherapy for hemorrhoids



Banding of hemorrhoids

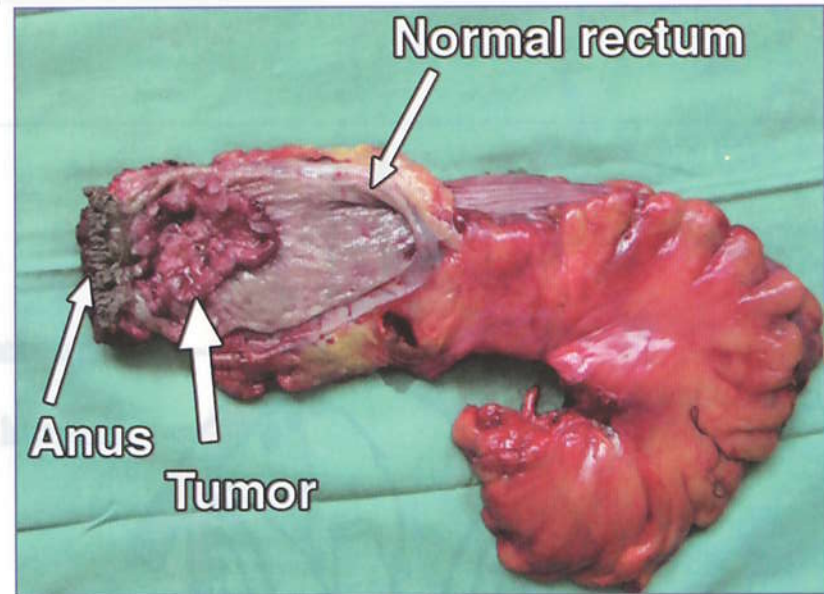


Lymphatic drainage of anal canal

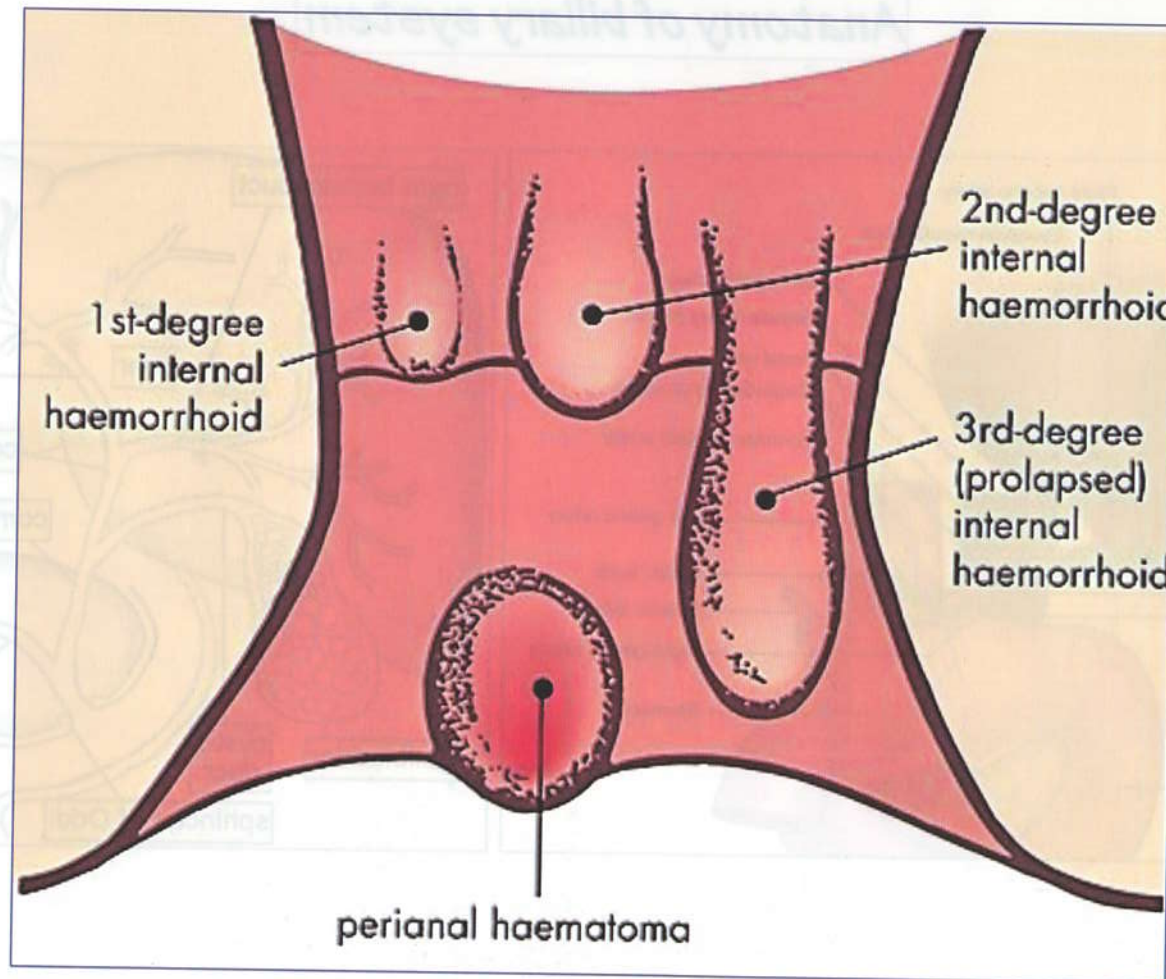


- **Anal canal superior to dentate line- 2 pathways**
 1. Along the superior rectal vessels- perirectal, presacral nodes
 2. Along the middle rectal vessels- internal iliac nodes (pudendal and hypogastric nodes)
- **Anal canal inferior to dentate line (also the anal verge and anal margin)- along the inferior rectal vessels- superficial inguinal, ext iliac**

Carcinoma of anal canal

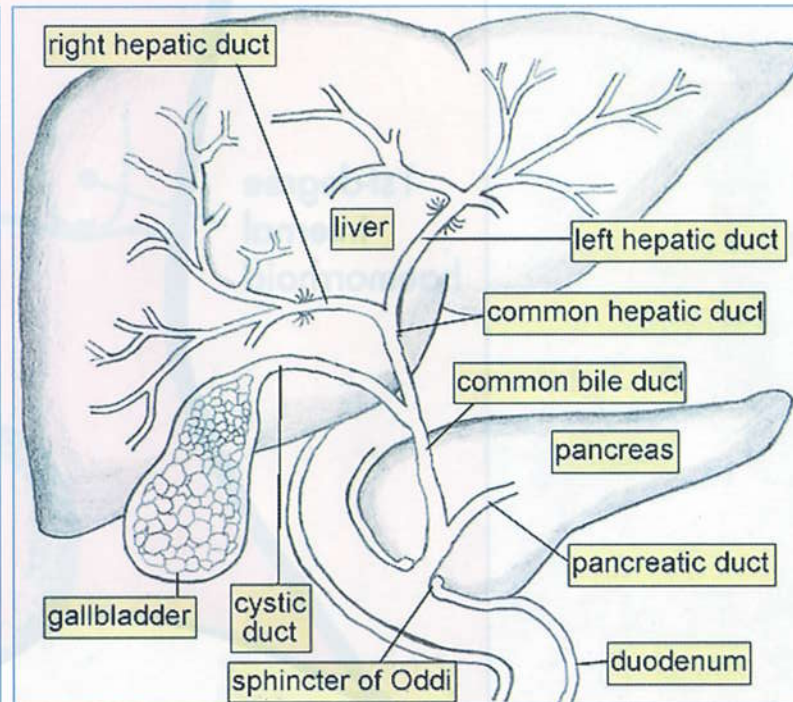
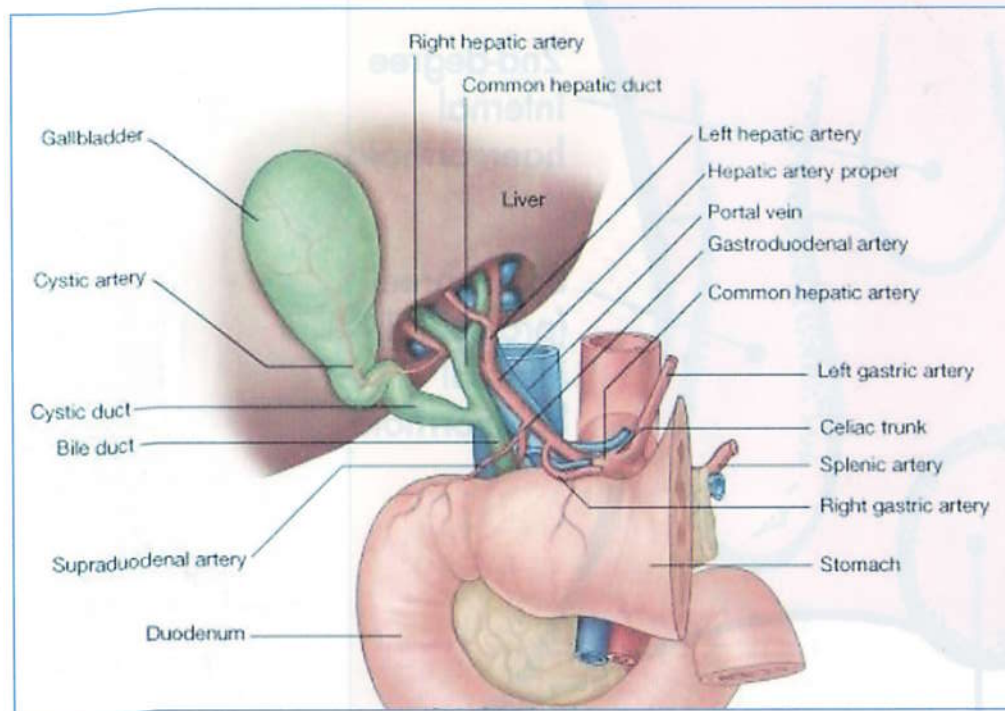


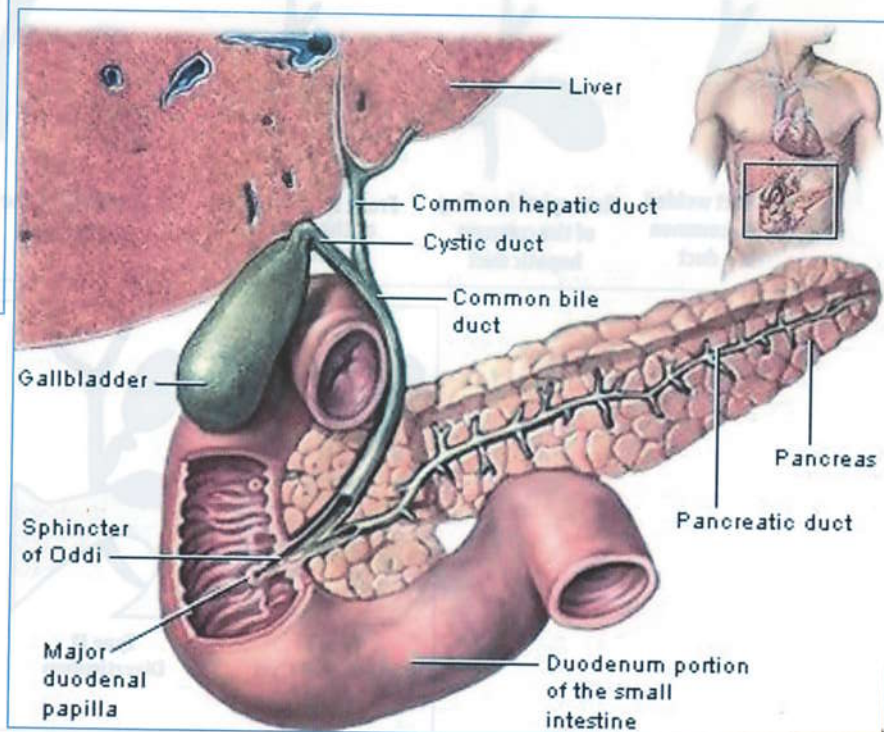
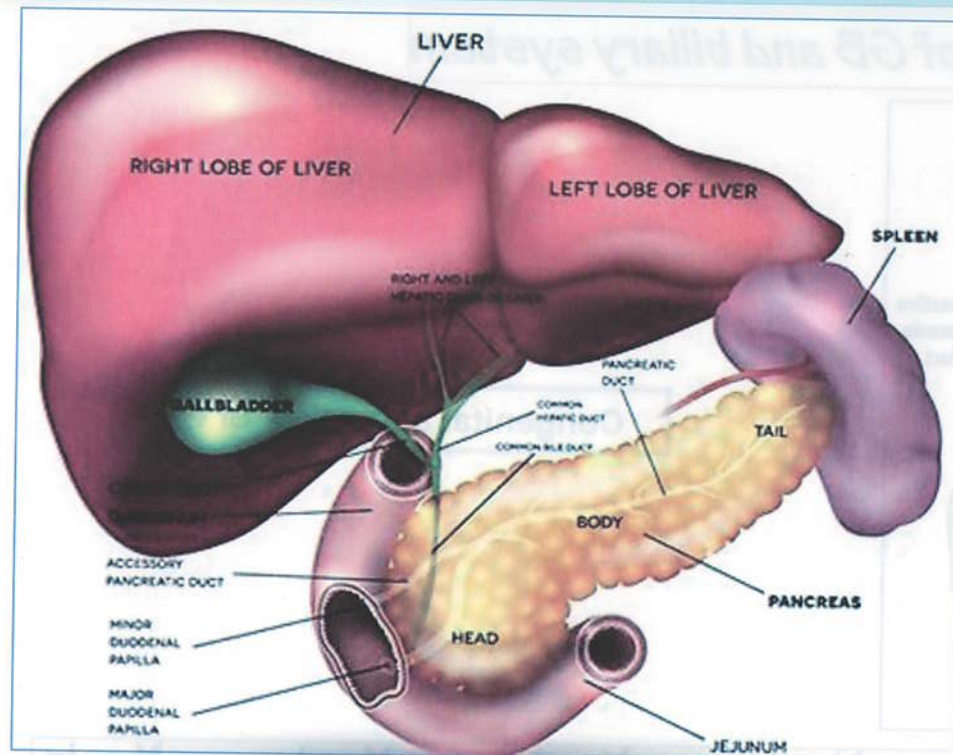
Perianal hematoma



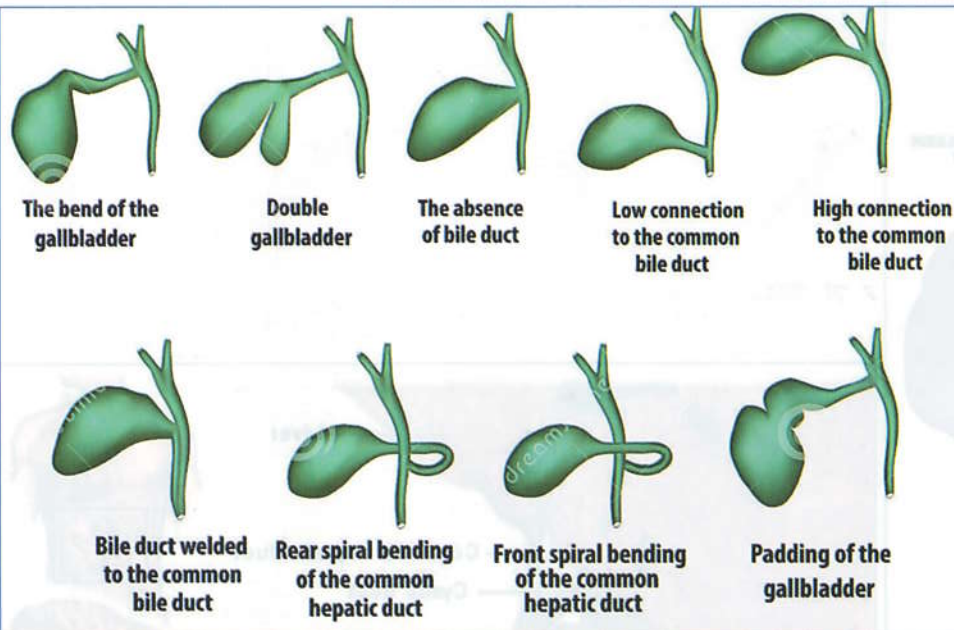
Biliary system

Anatomy of biliary system

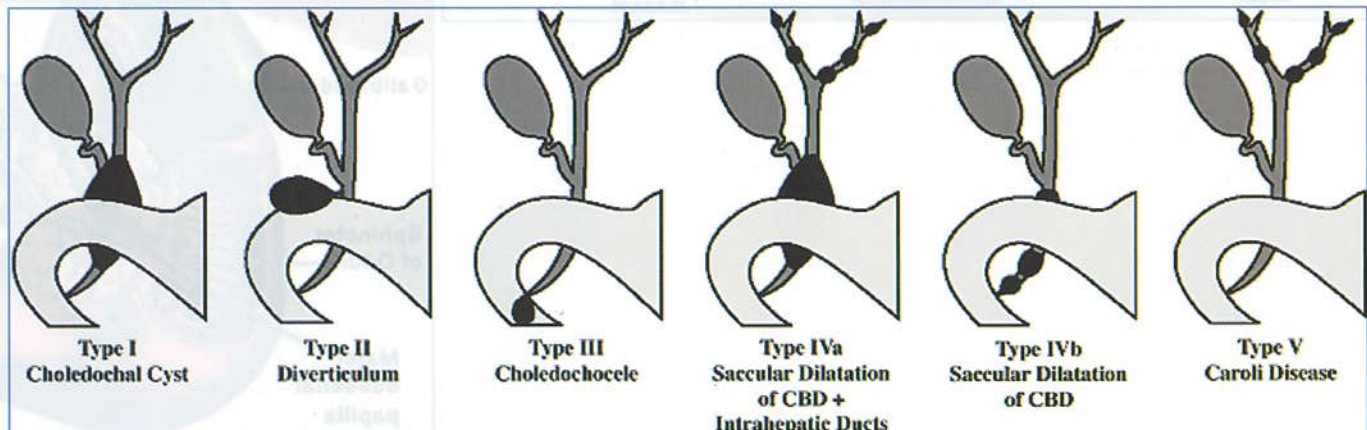


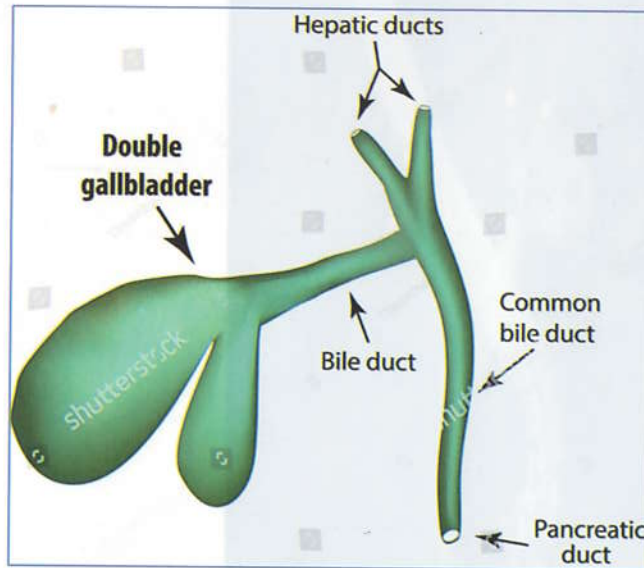


Congenital anomalies of GB and biliary system

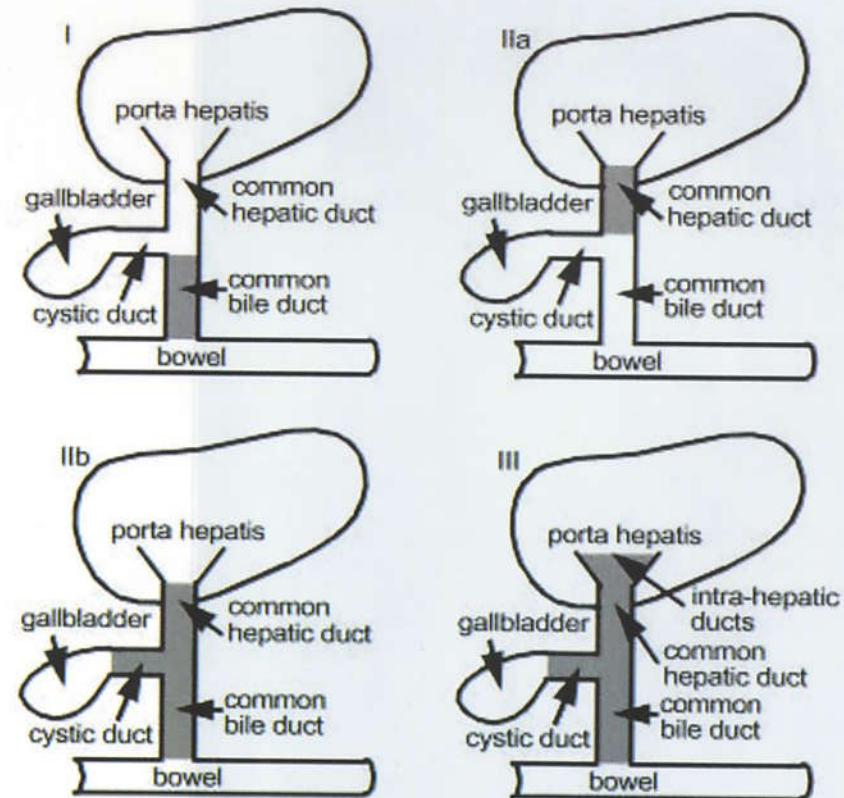


Congenital anomalies of GB



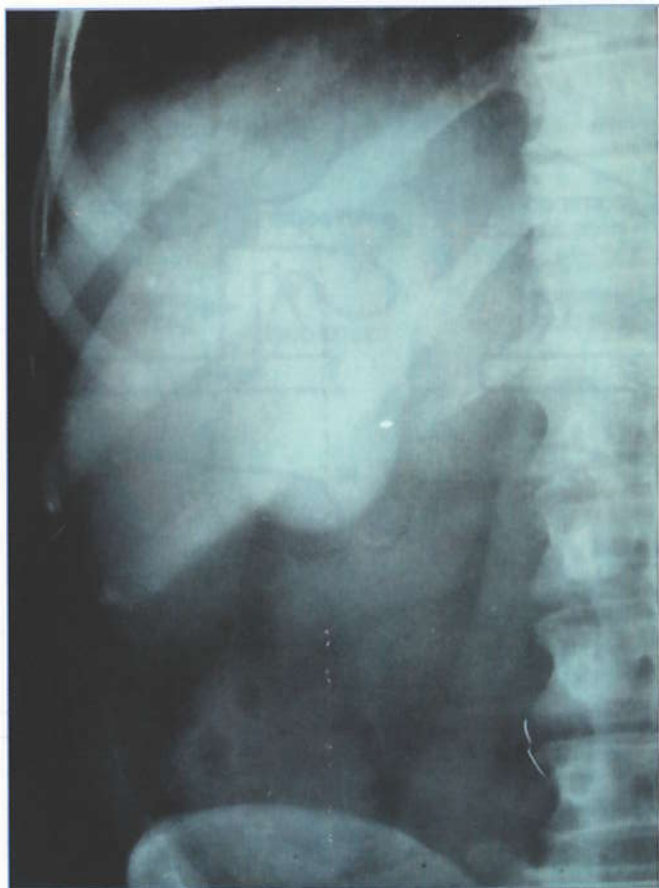


Double GB



Biliary atresia

Radiological investigations of biliary system



Normal Oral
cholecystography (OCG)



Normal ERCP

Gall stones



Oral cholecystography (OCG) showing: multiple GB stones



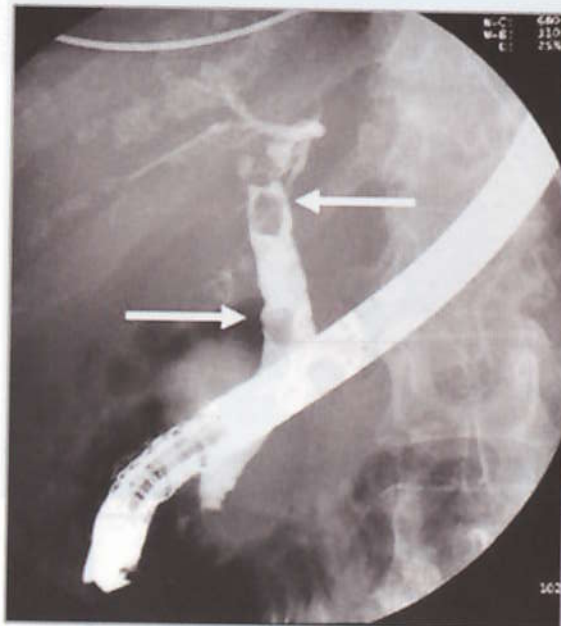
AP plain X-ray RT. hypochondrium:
Several, small, calcified stones can be seen in the area of the elongated gallbladder, which is probably totally filled with stones.



Plain X-ray abdomen-
showing:
multiple calcified faceted gallstones outlining the contours of the gallbladder in the Rt. upper quadrant



Plain X-ray abdomen, showing:
multiple calcified gallstones in the Rt. upper quadrant

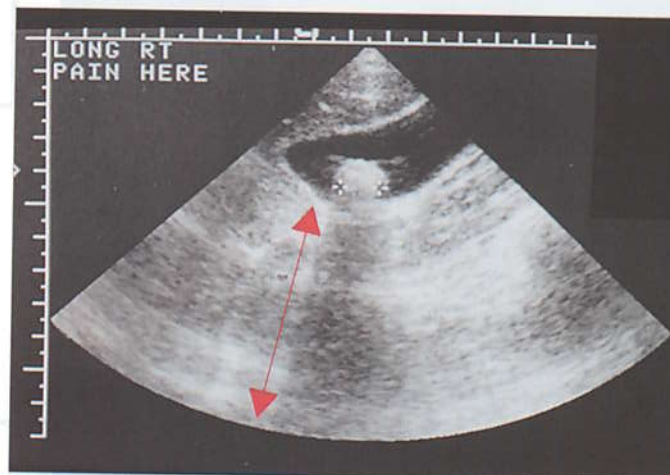


ERCP: Gall stones

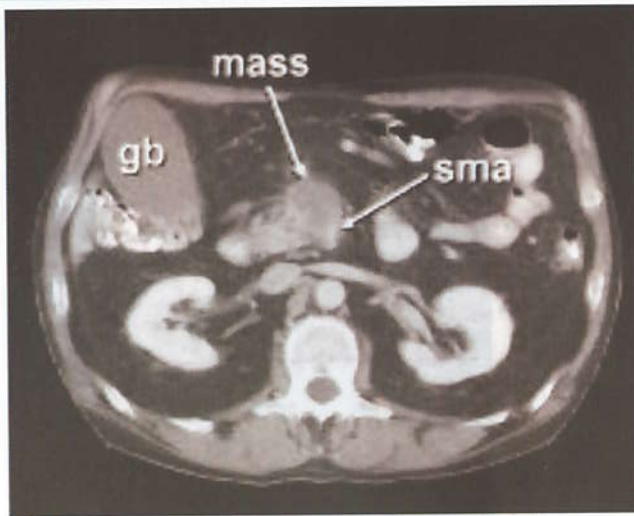


A ring of calcification in the expected location of the gallbladder

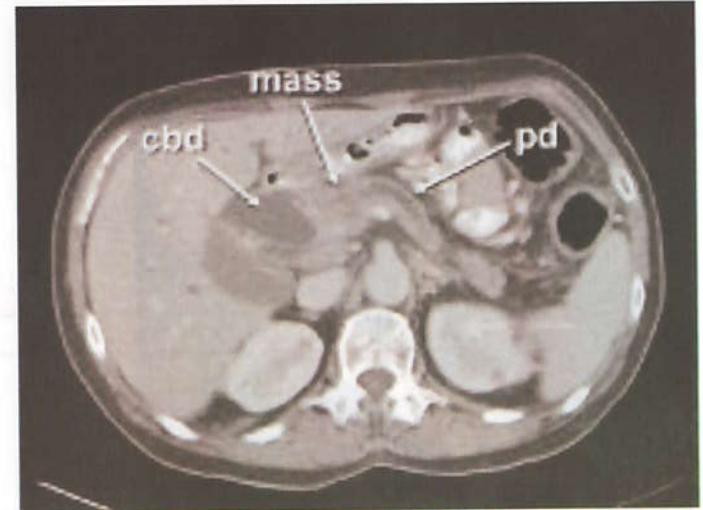
Porcelain GB



Solitary stone GB with posterior acoustic shadowing



Mass in the head of pancreas causing biliary obstruction & huge GB dilatation

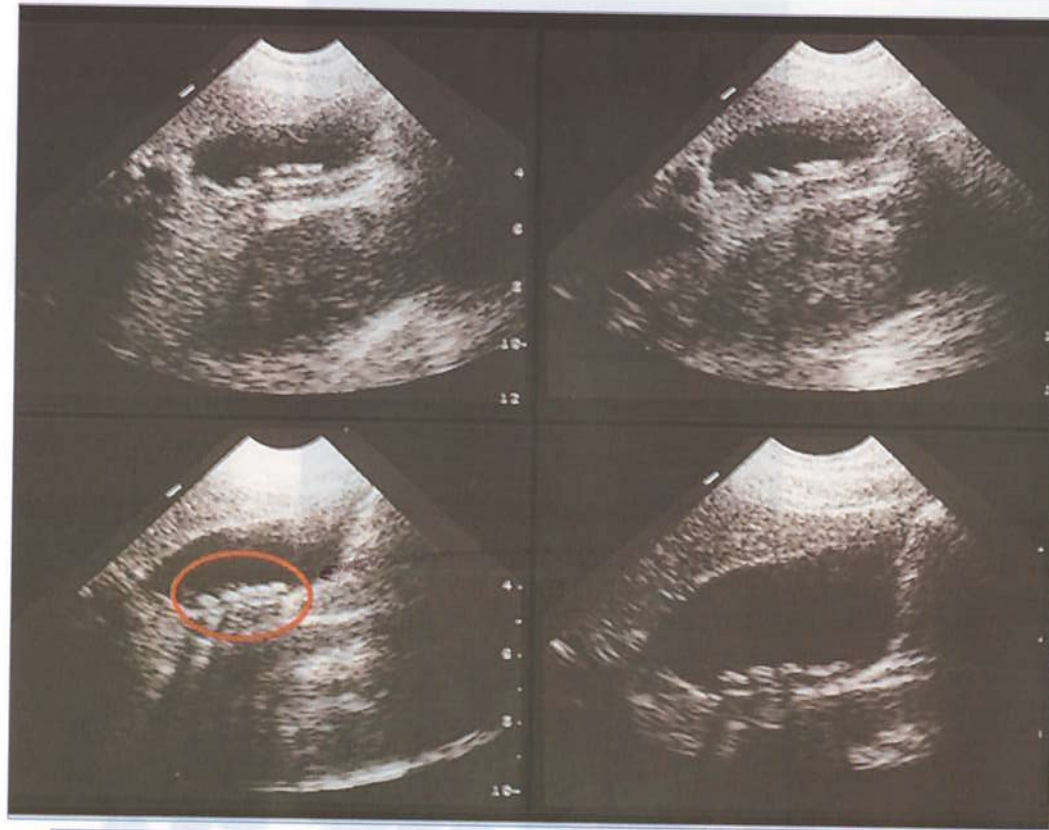


Small mass in the pancreas causing dilatation of the common bile duct (CBD) & pancreatic duct (pd)



Solitary stone GB with posterior acoustic shadowing

Solitary stone GB



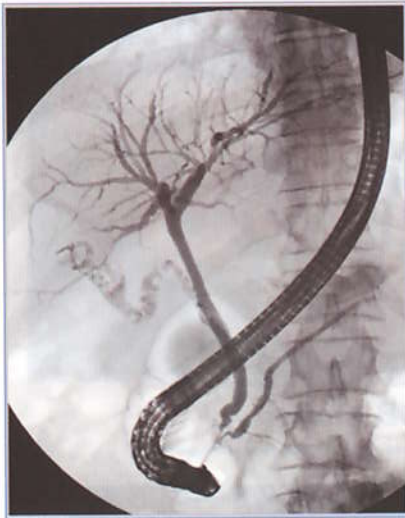
Abdominal Ultrasound: Cholelithiasis
Multiple, discrete echogenic foci within the gallbladder with posterior acoustic shadowing. The foci were shown to move with change in patient position.



GB stone



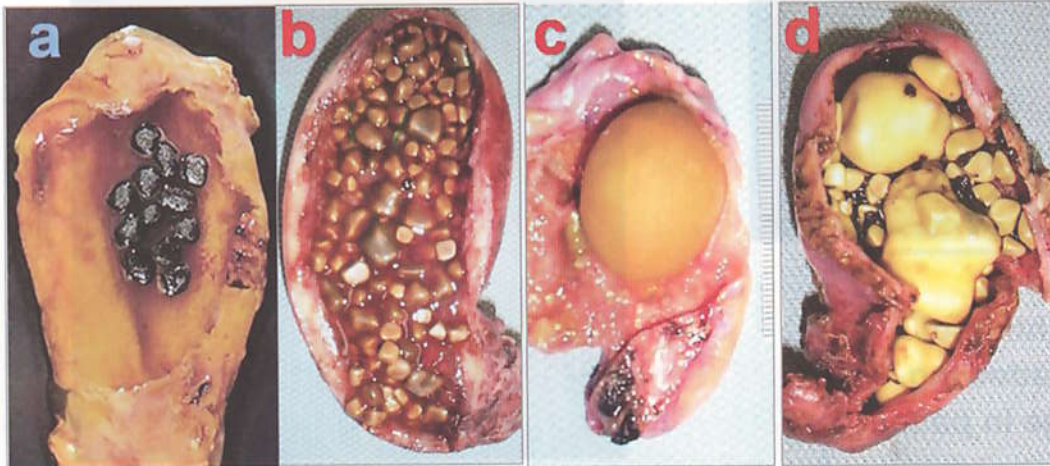
GB stone



T-tube
showing gall
stone



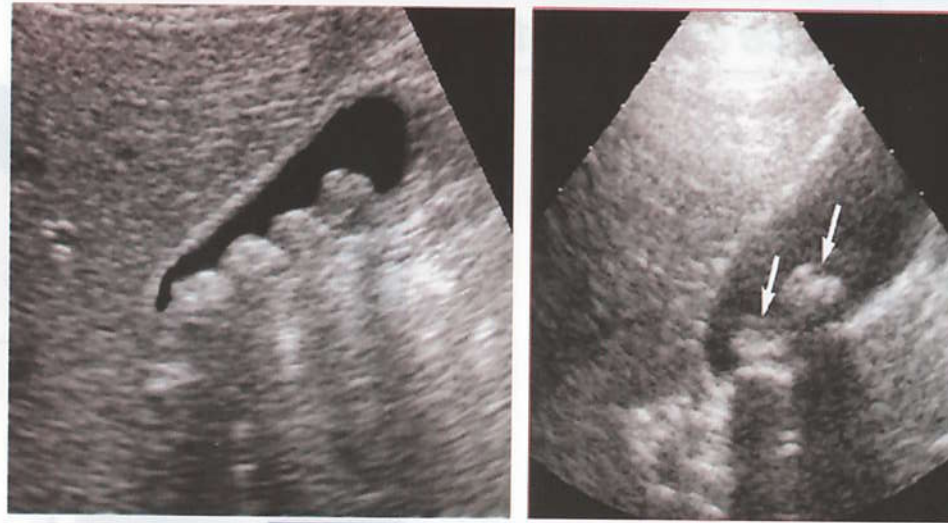
MRCP
showing 2
CBD stones
& dilated
CBD



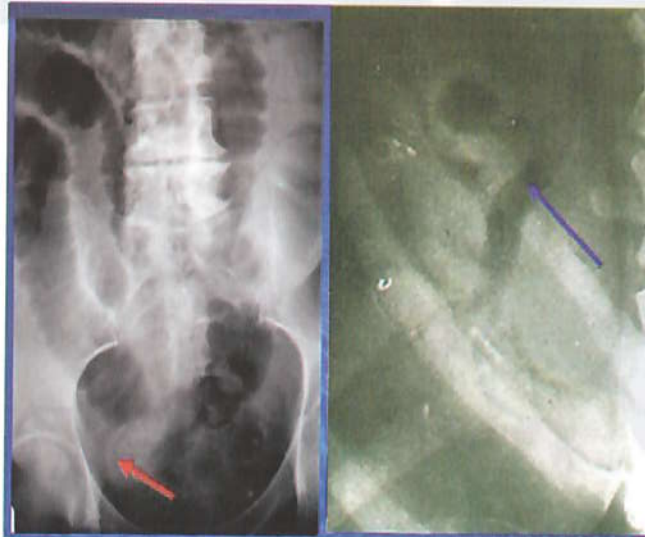
Gall stones



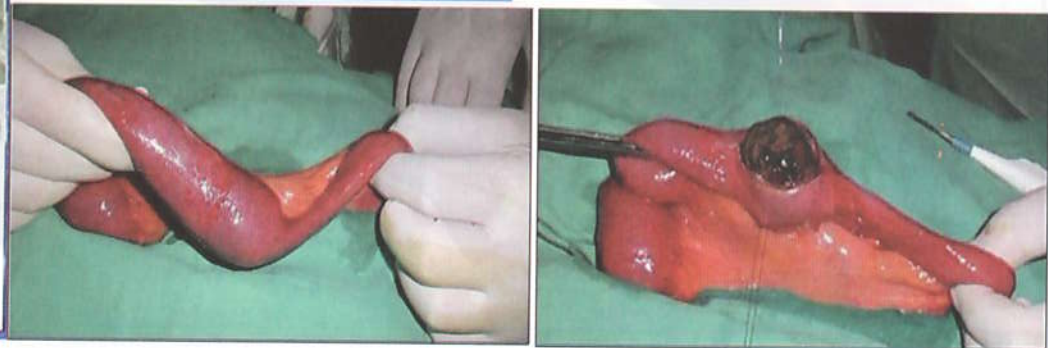
Mixed stones



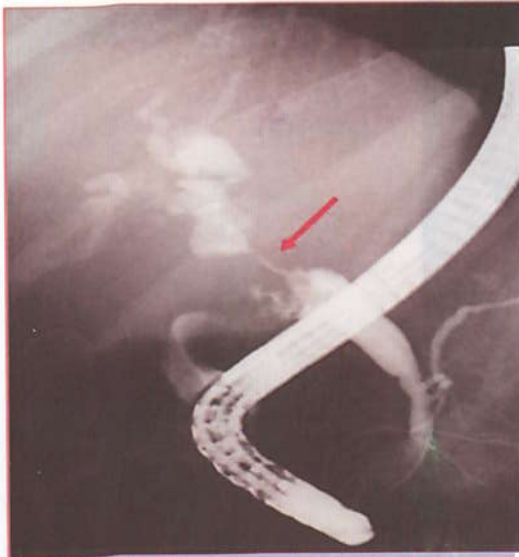
U/S showing gall stones



Gall stone ileus



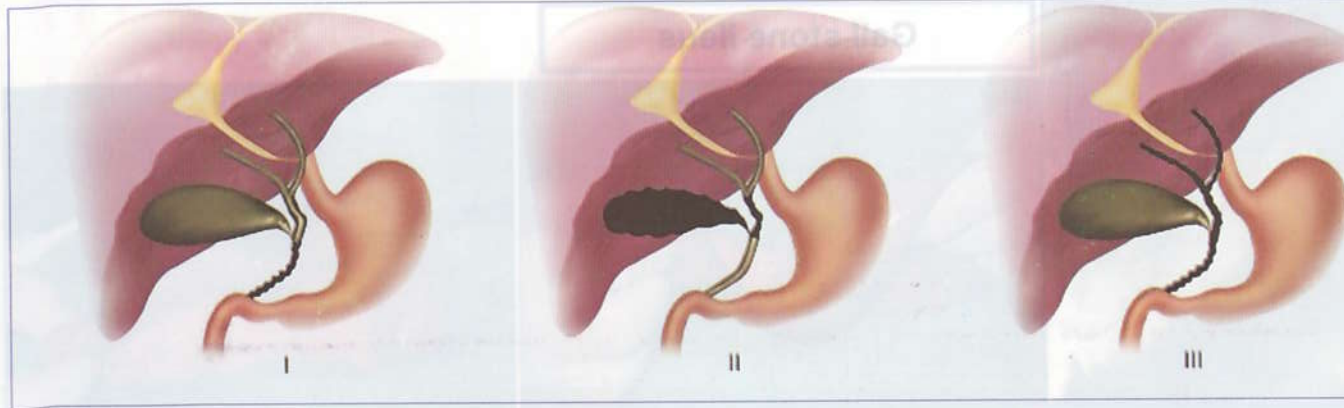
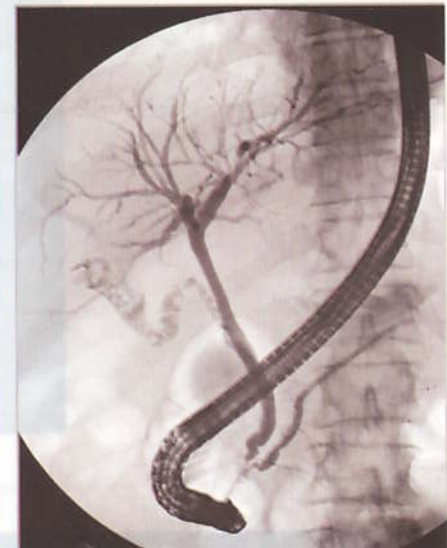
Acute cholecystitis and stricture



Acute cholecystitis



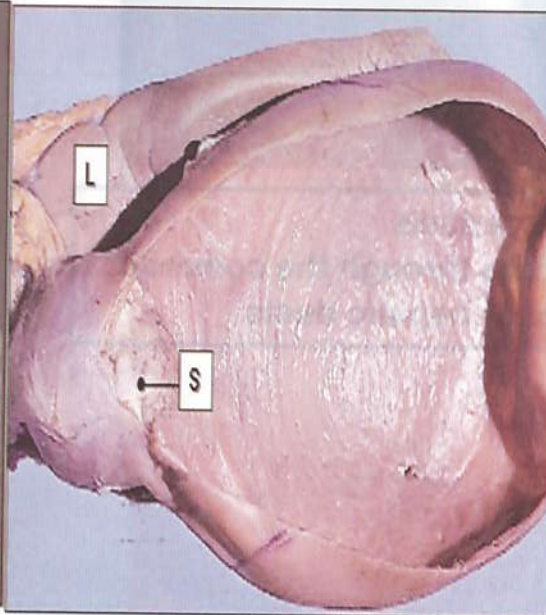
Biliary stricture



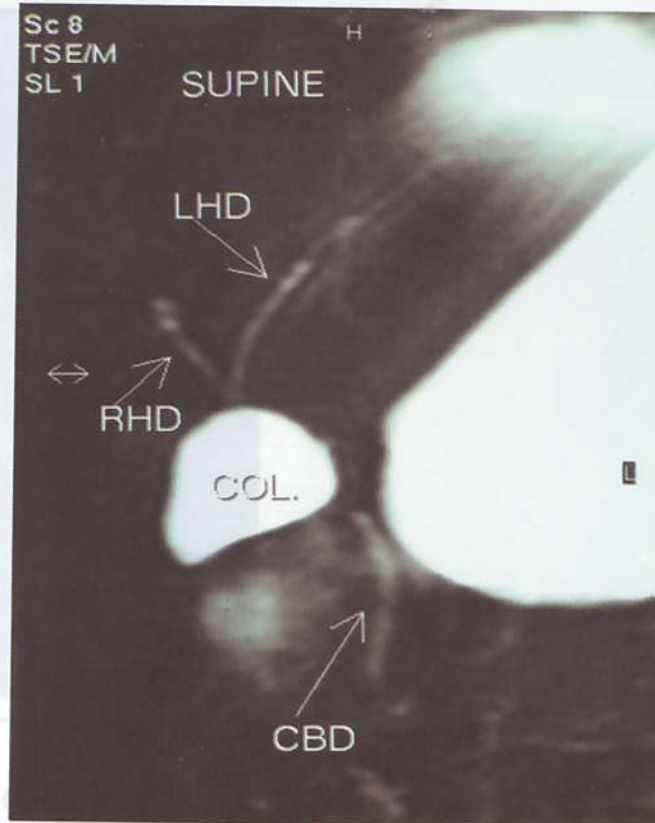
Biliary stricture



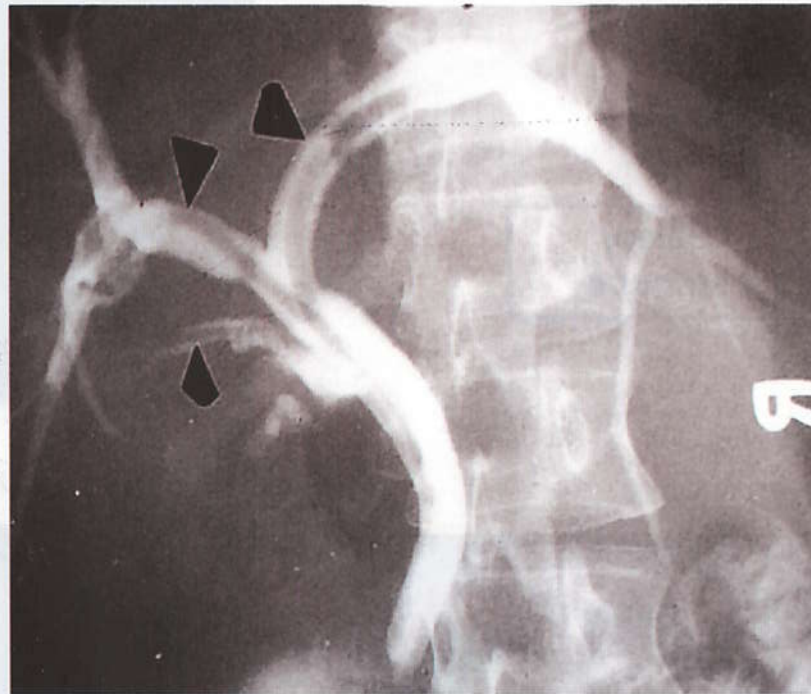
**Biliary
stricture**



Mucocele – Hydrops of GB



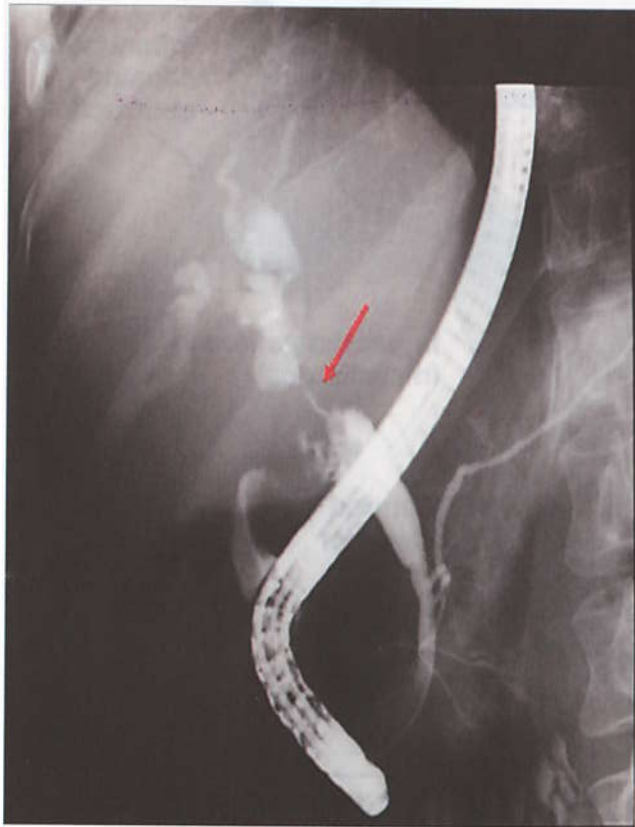
**M.R. cholangiography showing
CHD injury with collection**



Ascariasis

Worms are seen extending through the common bile duct and major hepatic ducts

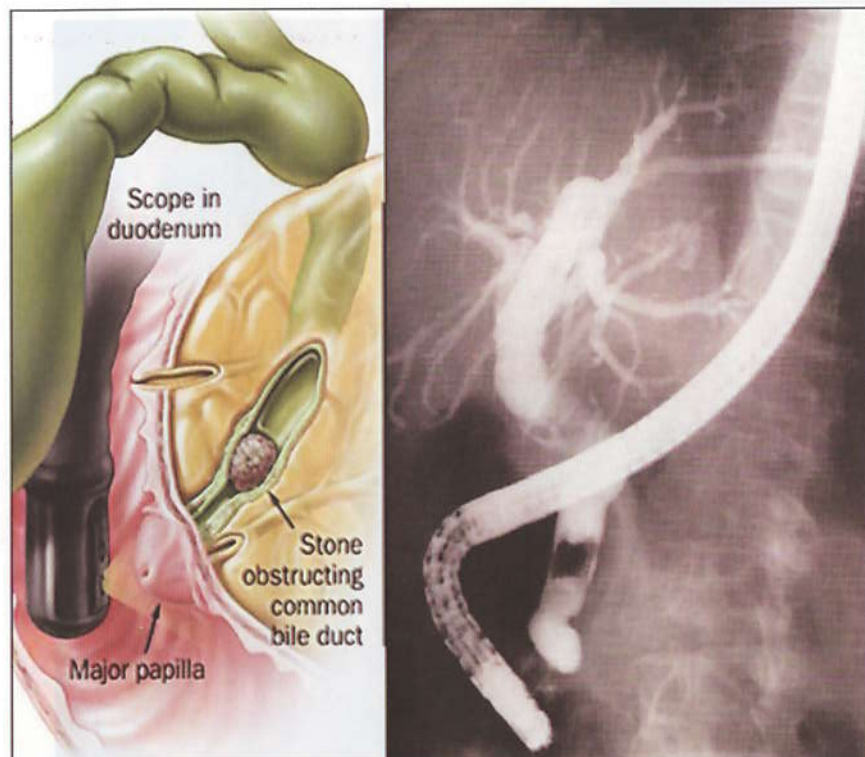
Carcinoma of gall bladder



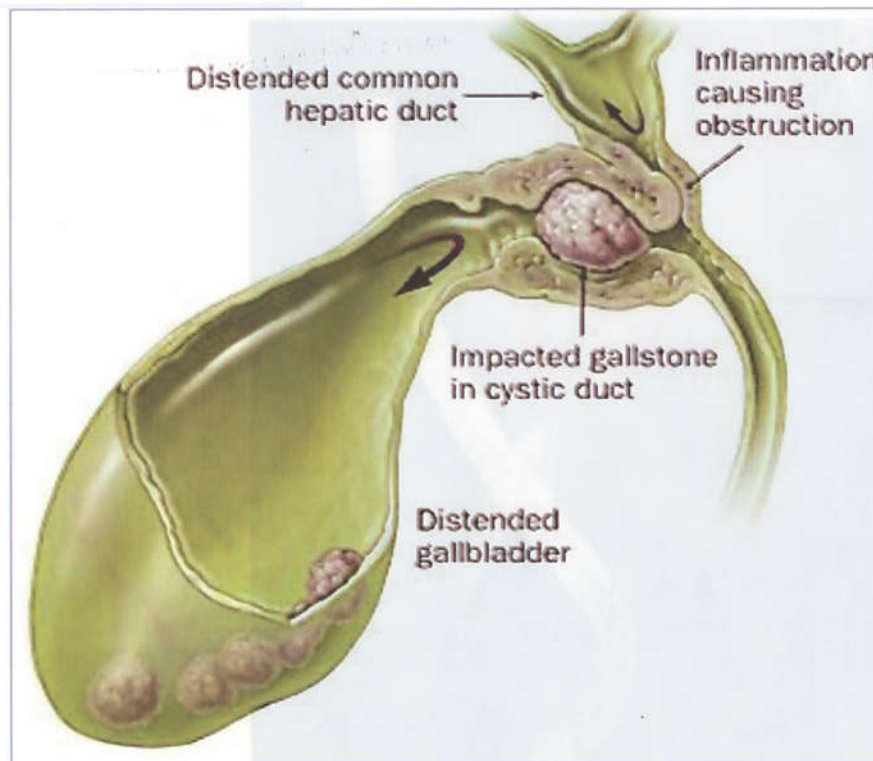
ERCP- bile duct carcinoma



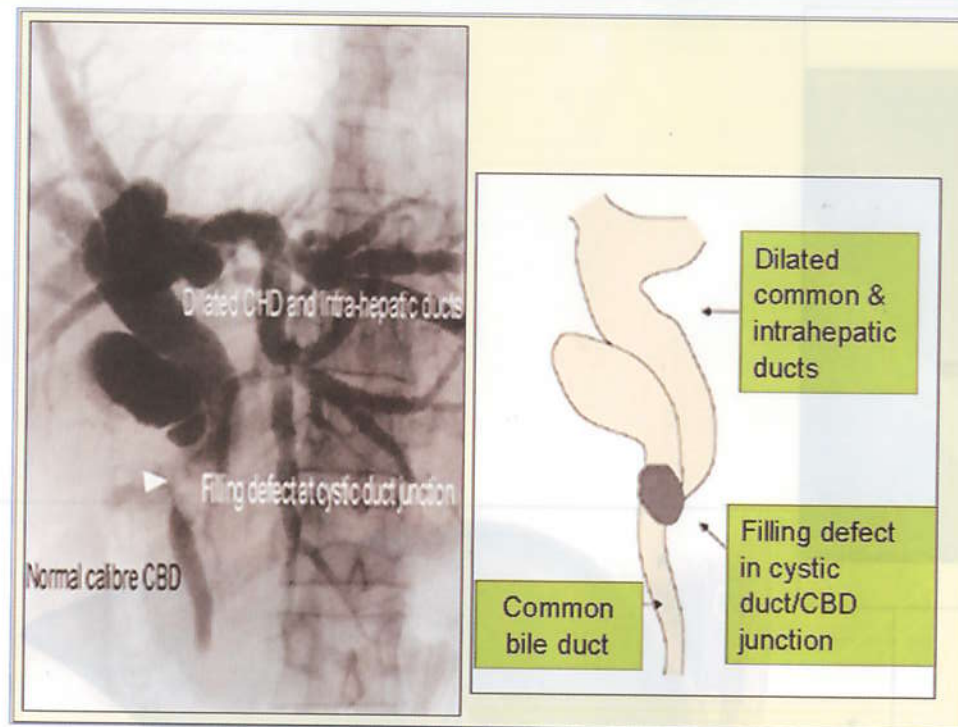
Carcinoma of GB



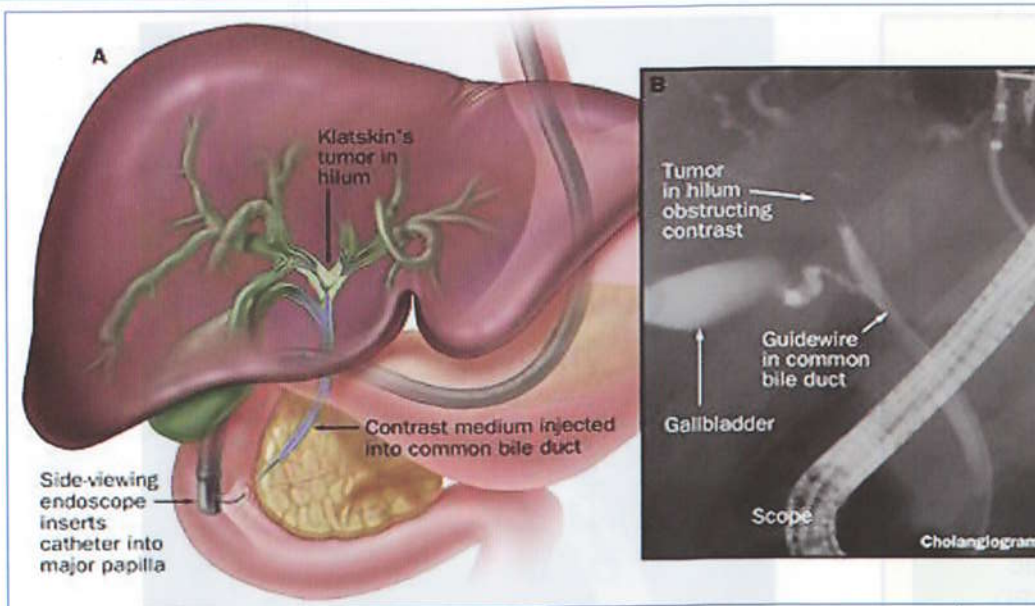
Obstructive jaundice



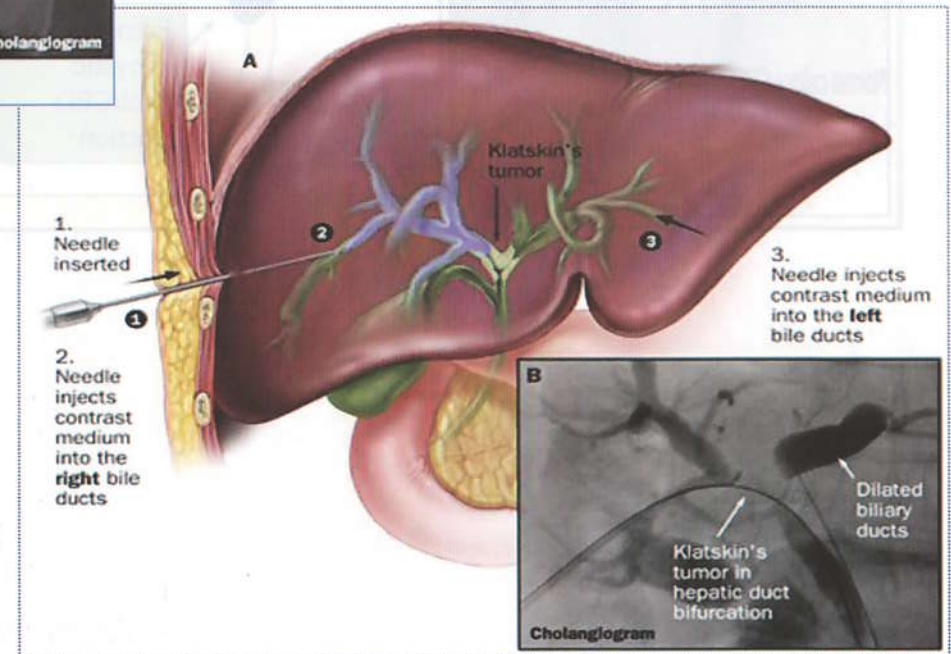
Mirizzi's Syndrome



**Stent inserted endoscopically in
CBD**

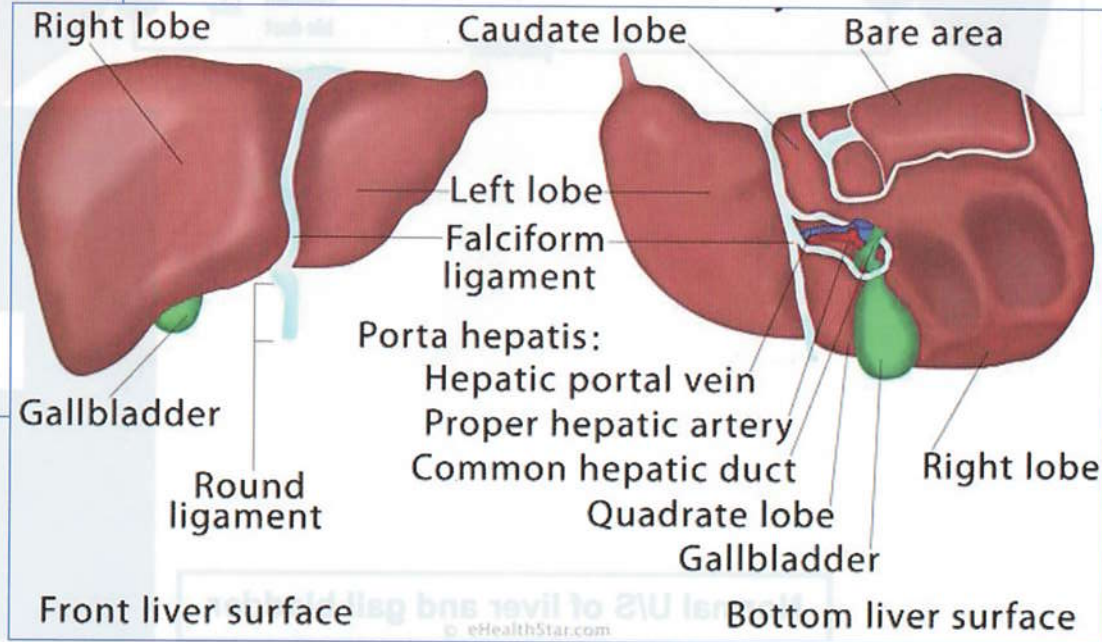
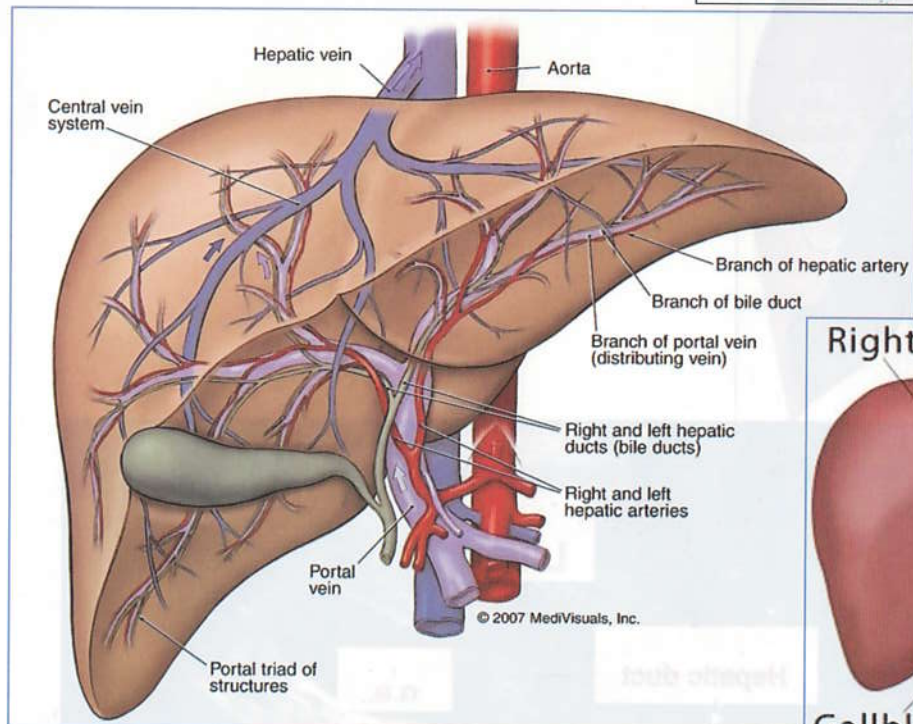


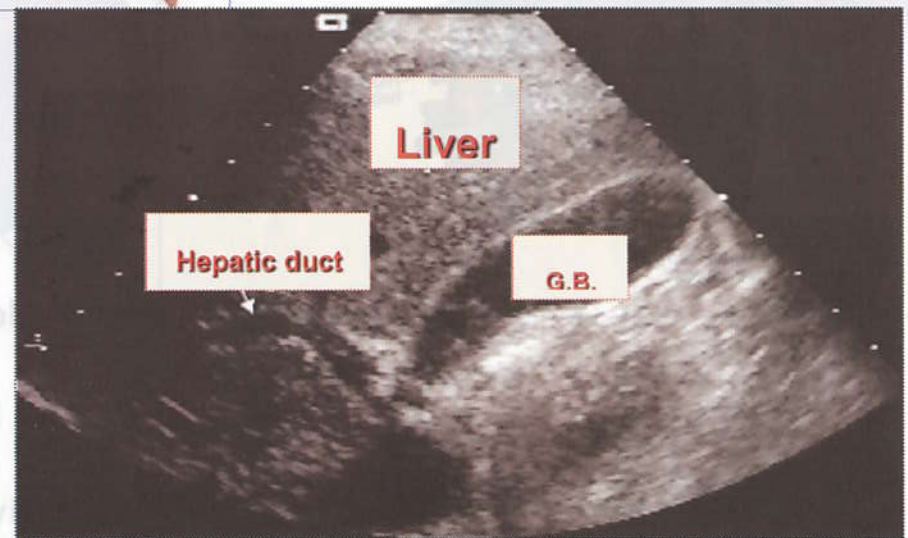
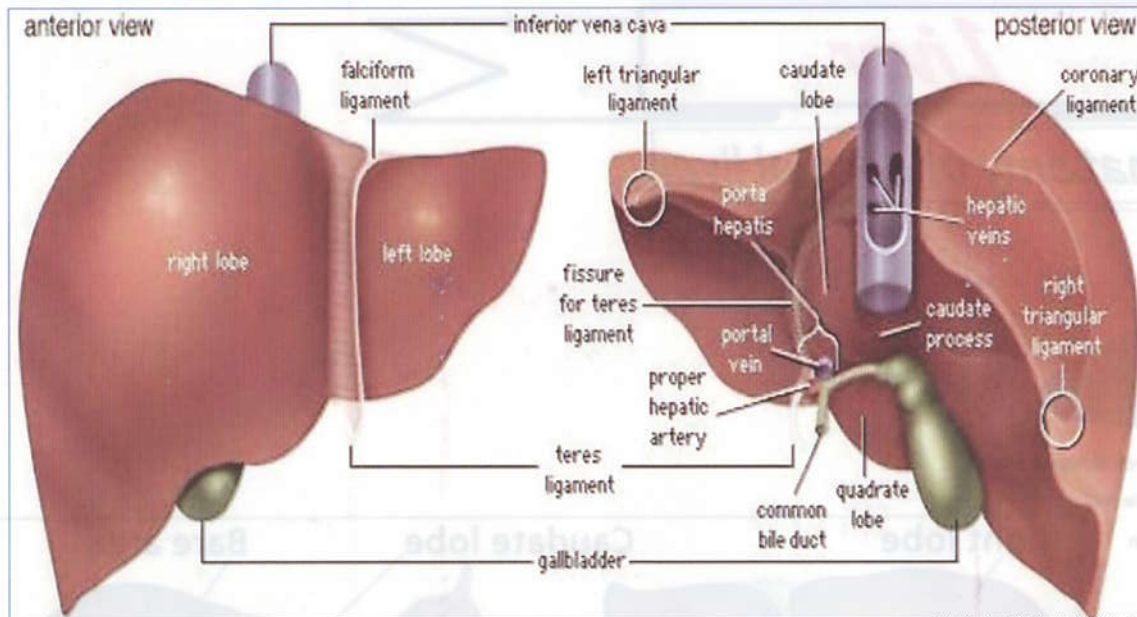
**Klatskin's tumor:
Bile duct carcinoma**



Liver

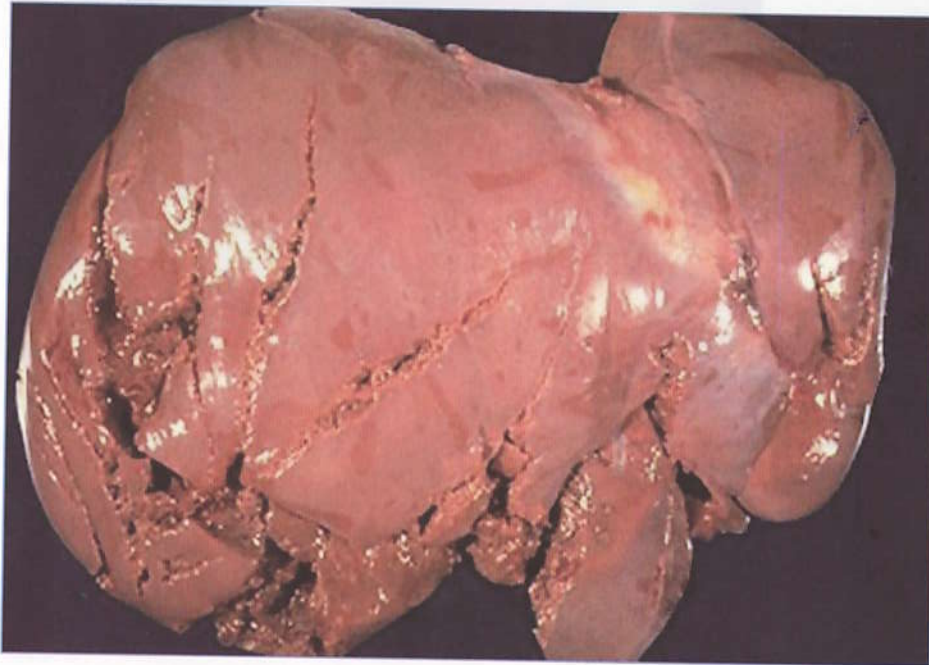
Anatomy of normal liver



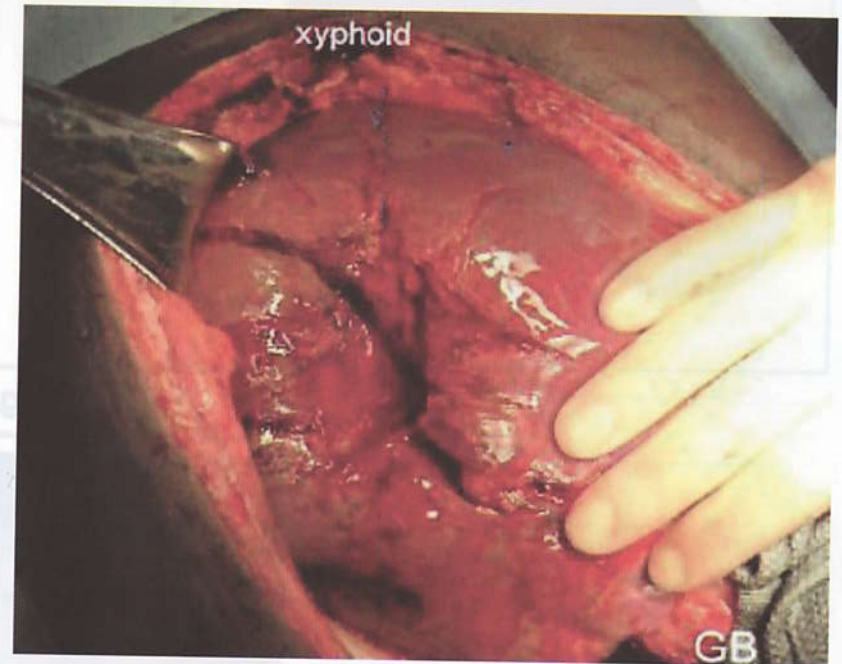


Normal U/S of liver and gall bladder

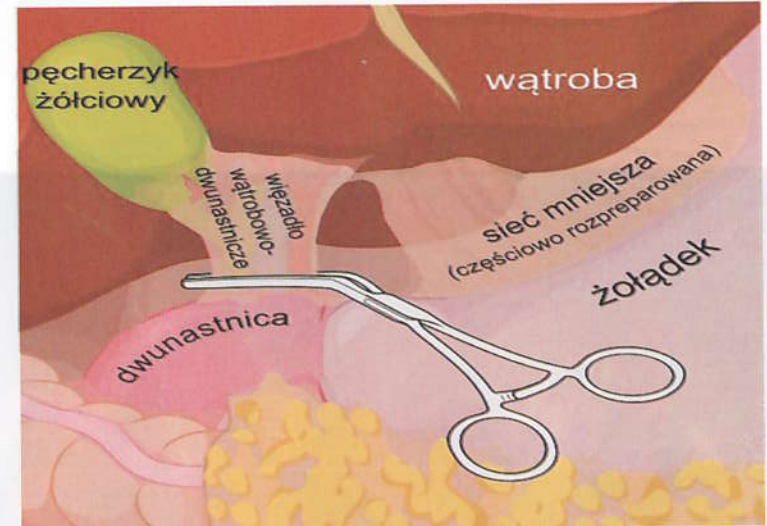
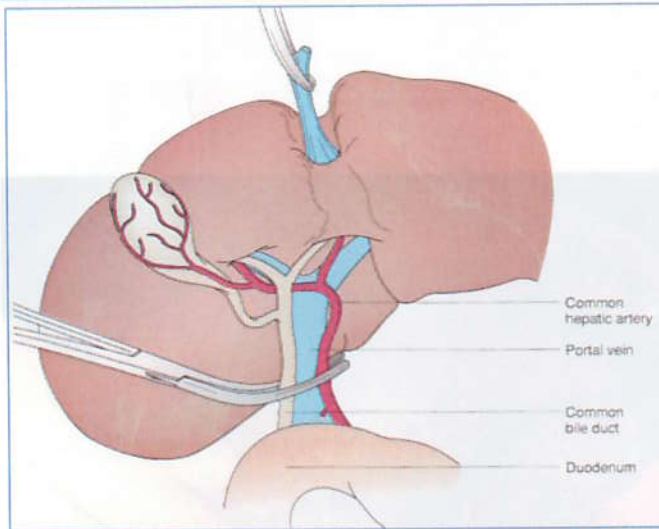
Liver trauma



Multiple hepatic lacerations



Liver injury due to gun shot

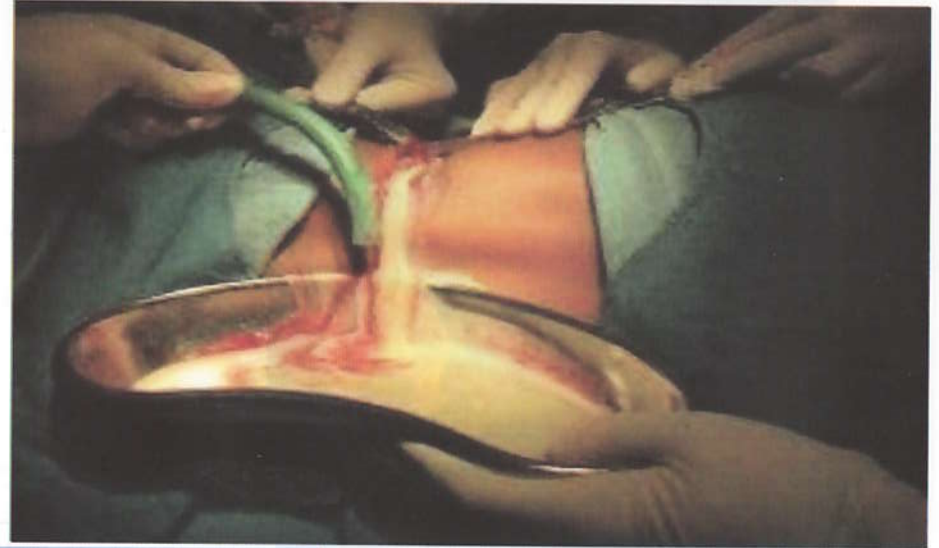
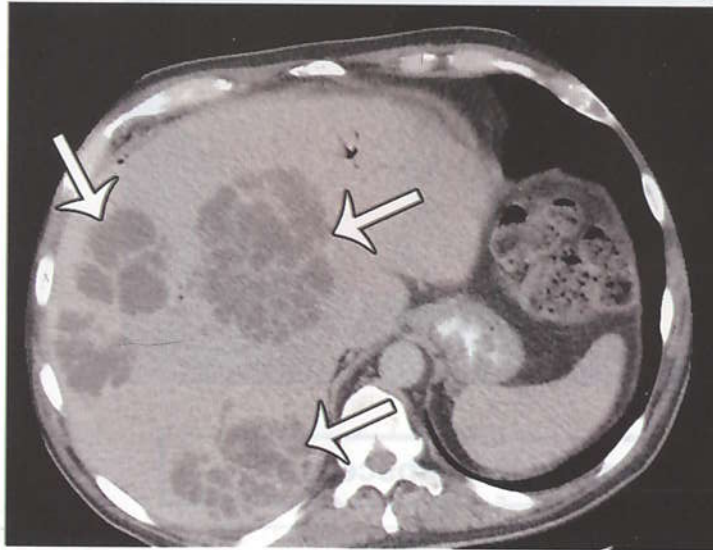


Pringles maneuver

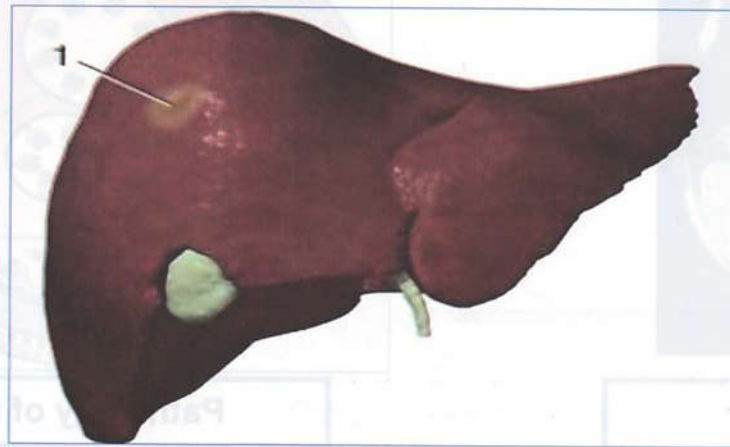


CT showing liver injury

Infections of liver

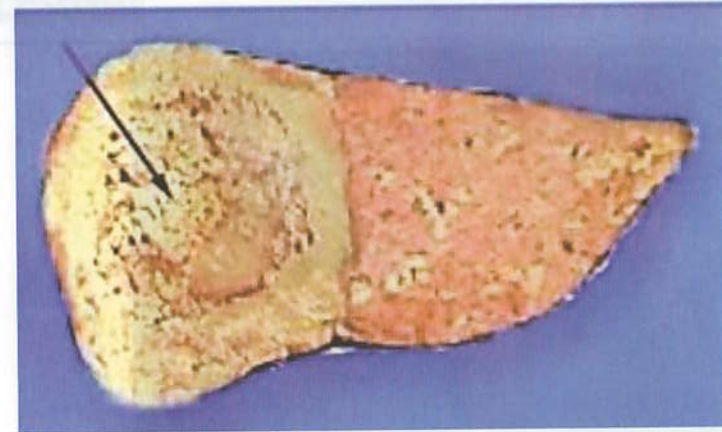


Pyogenic liver abscess

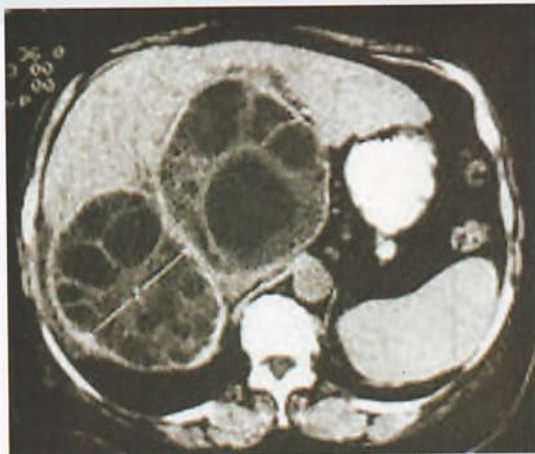




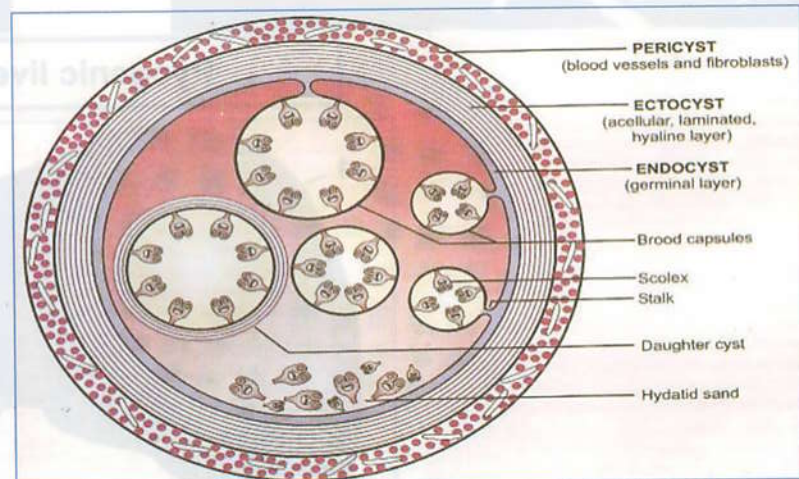
Amebic liver abscess CT



Amebic liver abscess

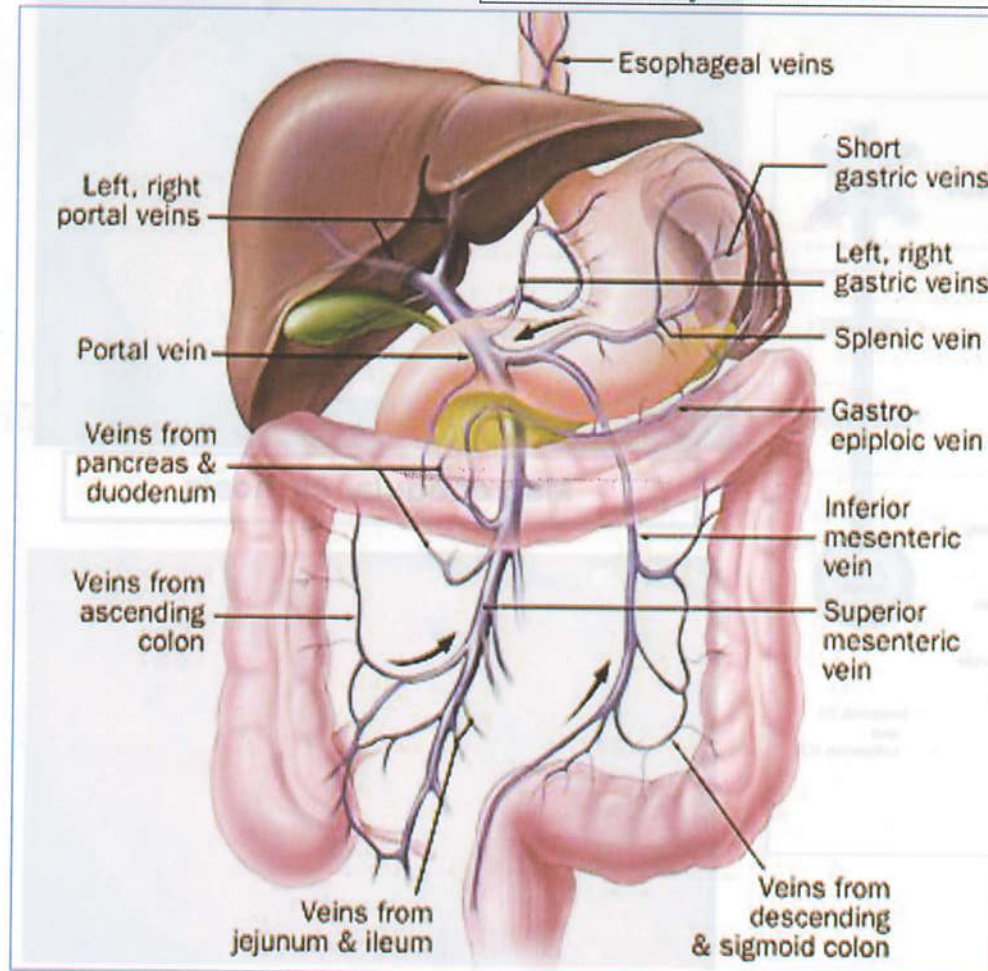


Hydatid disease of liver

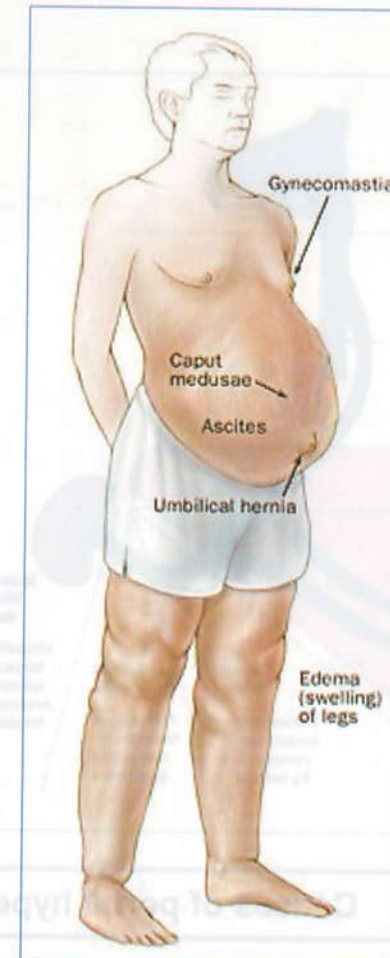


Pathology of hydatid cyst

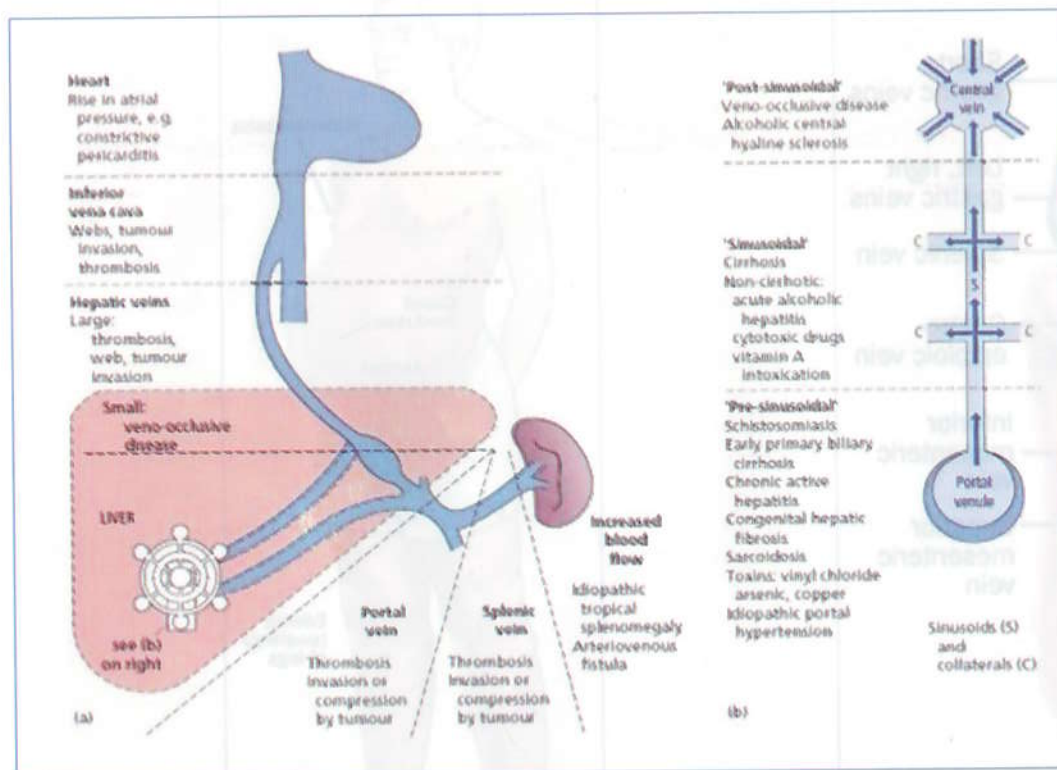
Portal hypertension and liver cirrhosis



Portal venous system



C/P of portal hypertension with LCF



Causes of portal hypertension



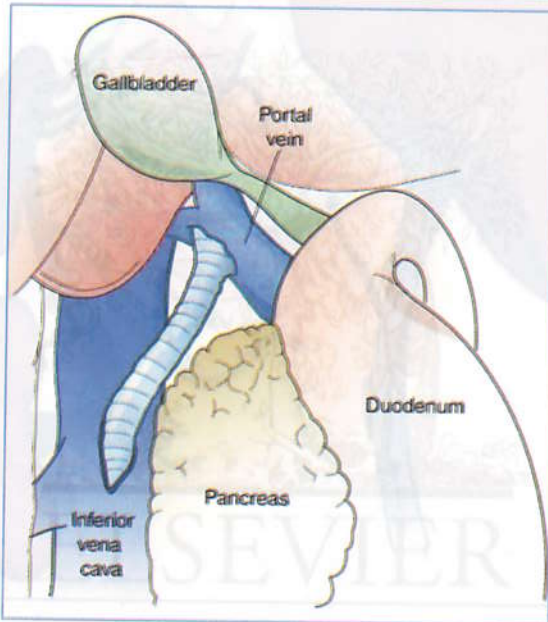
Macronodular cirrhosis



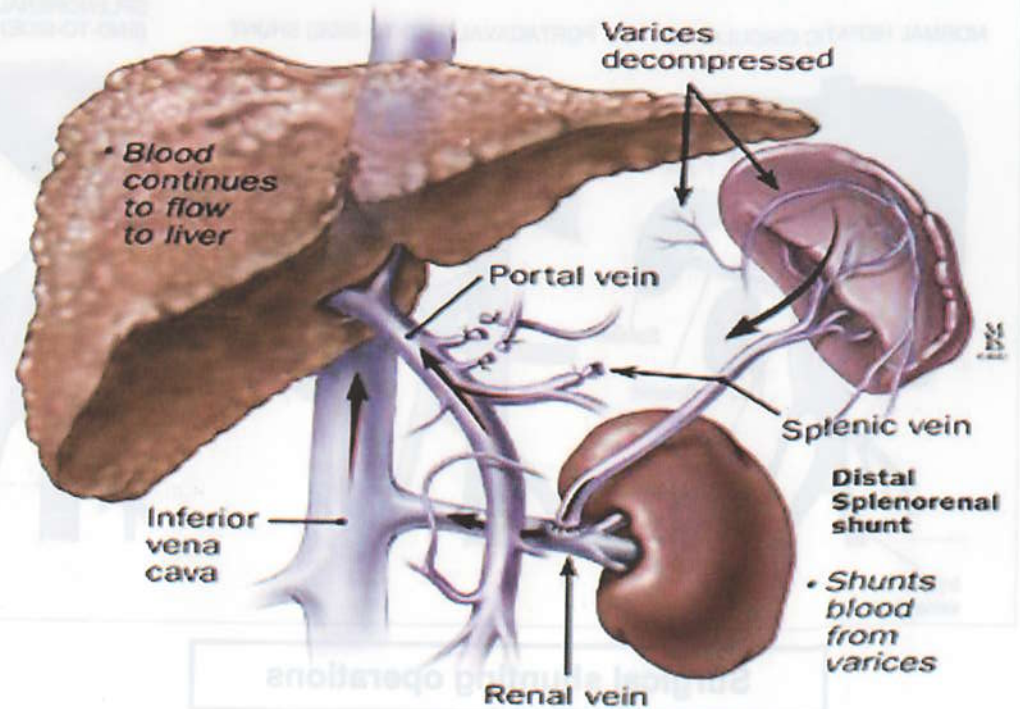
Micronodular cirrhosis



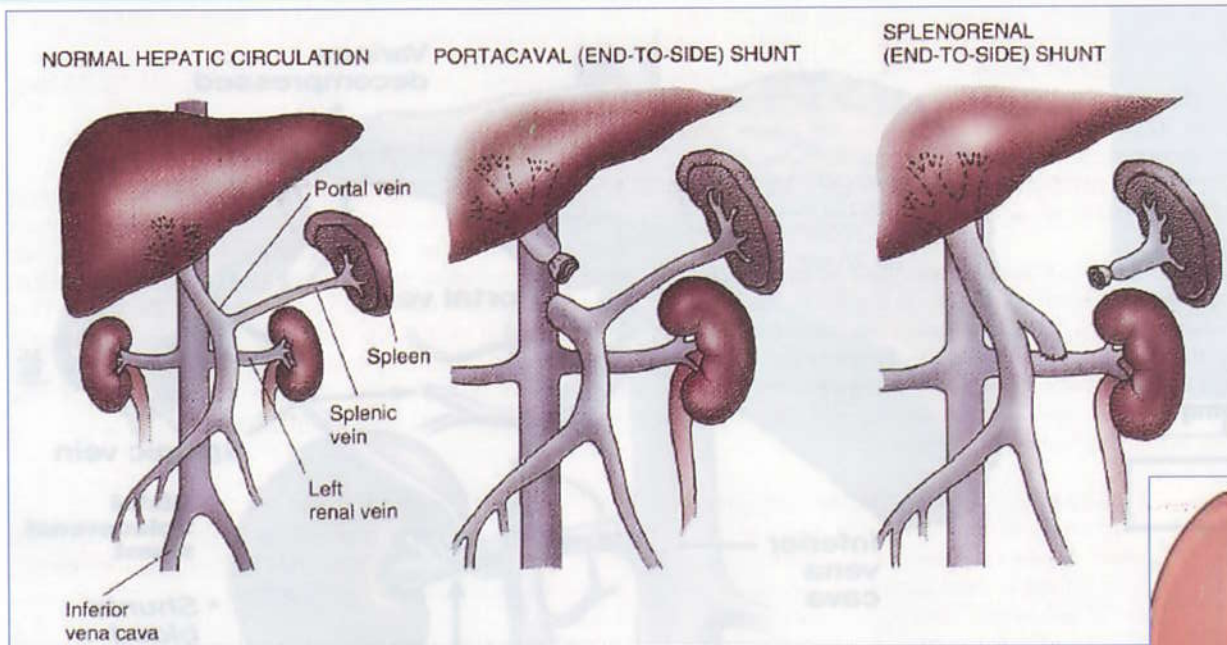
Biliary cirrhosis



Portocaval shunt operation

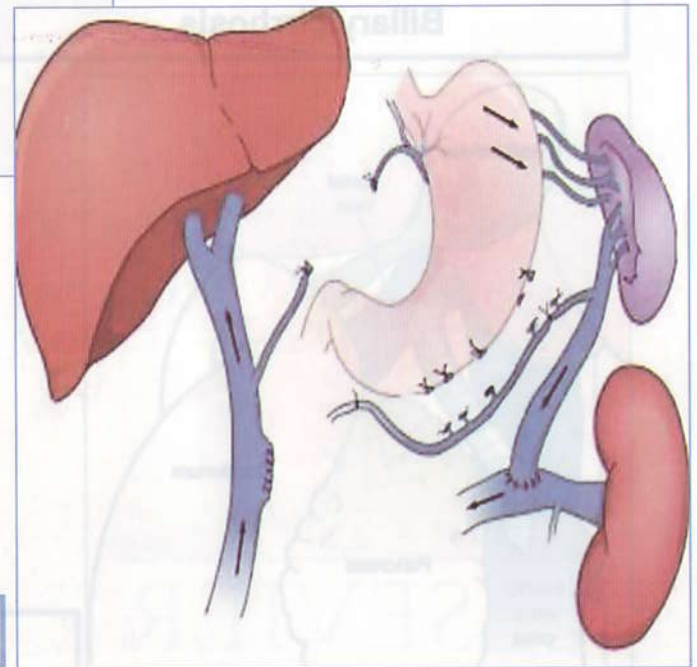


Surgical management of PHT

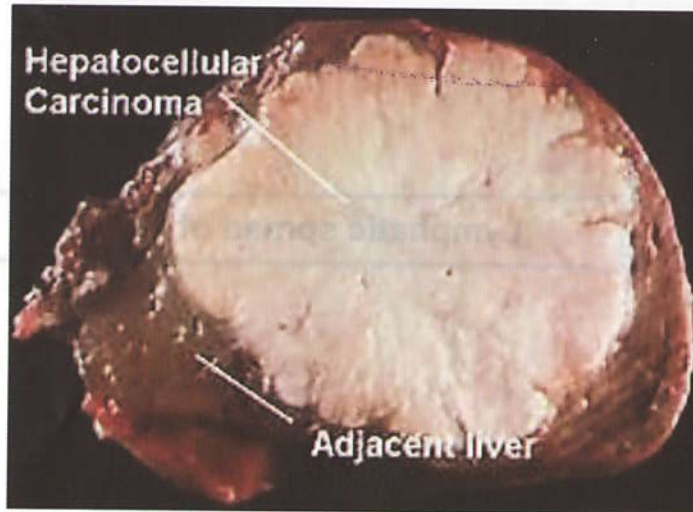


Surgical shunting operations

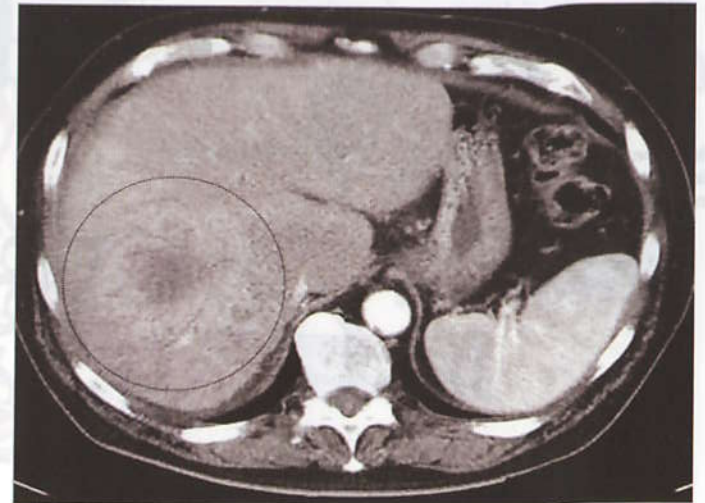
Selective Shunt (Waren shunt)



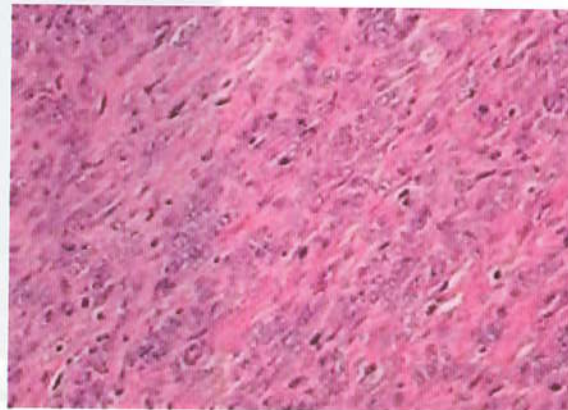
Liver tumors



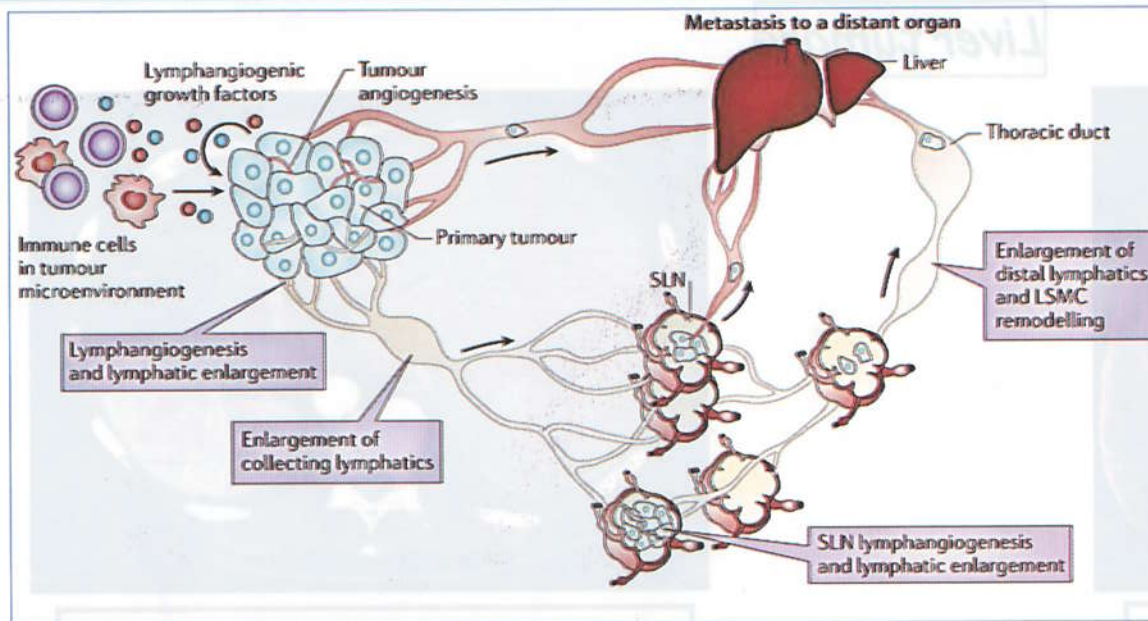
Hepatocellular carcinoma



CT scan showing HCC



Pathology of HCC

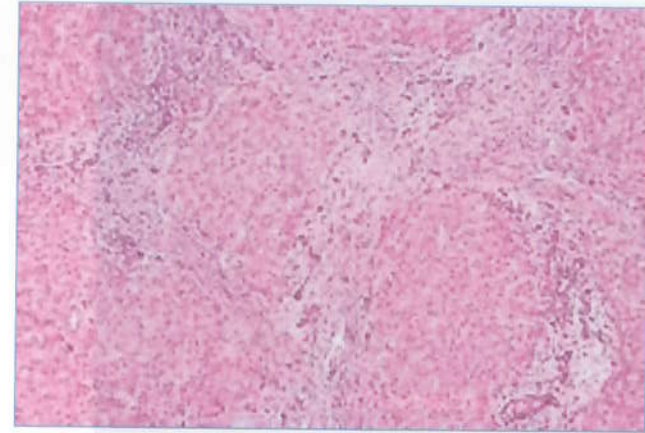
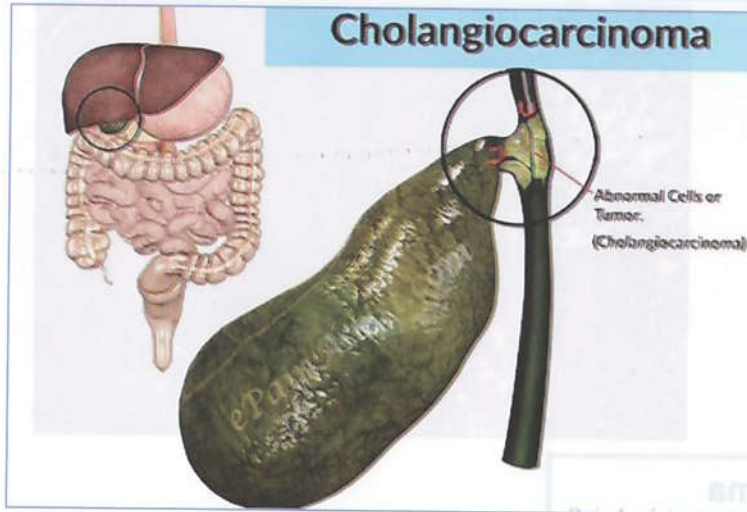


Lymphatic spread of HCC

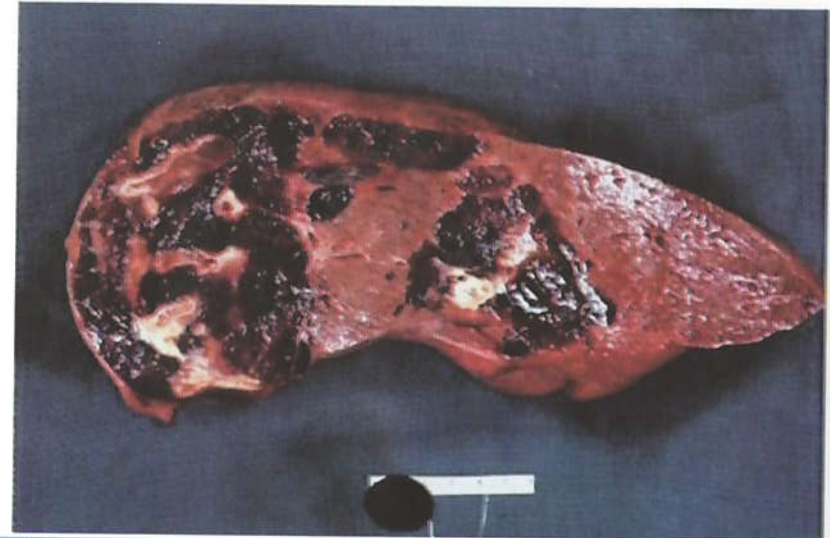
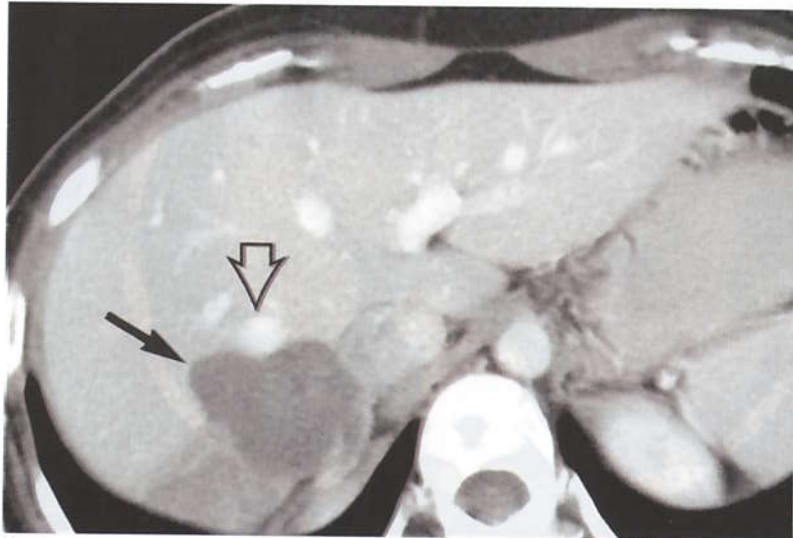
Solitary hepatic nodule for D.D.



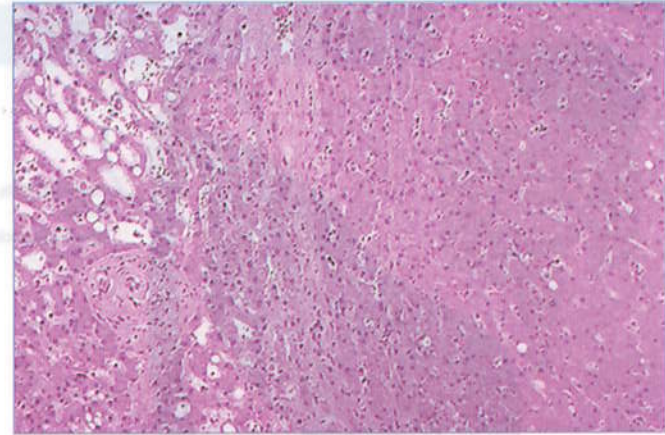
Cholangiocarcinoma



Focal nodular hyperplasia



Liver hemangioma

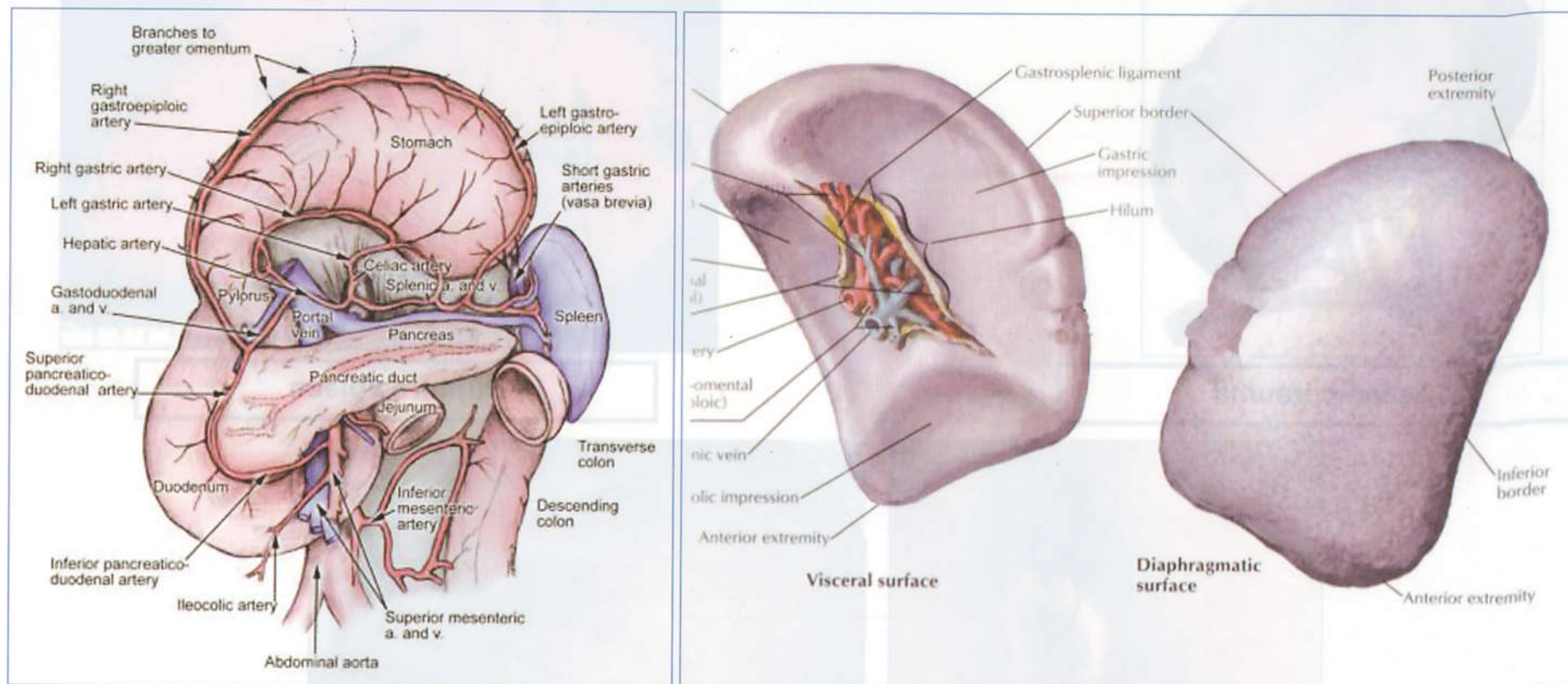


Liver cell adenoma



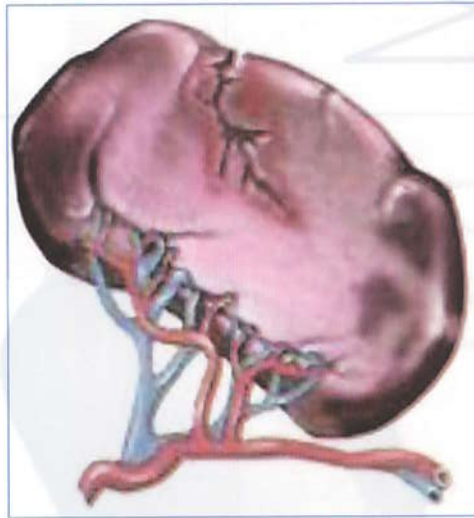
Multiple liver secondaries (metastasis)

Spleen

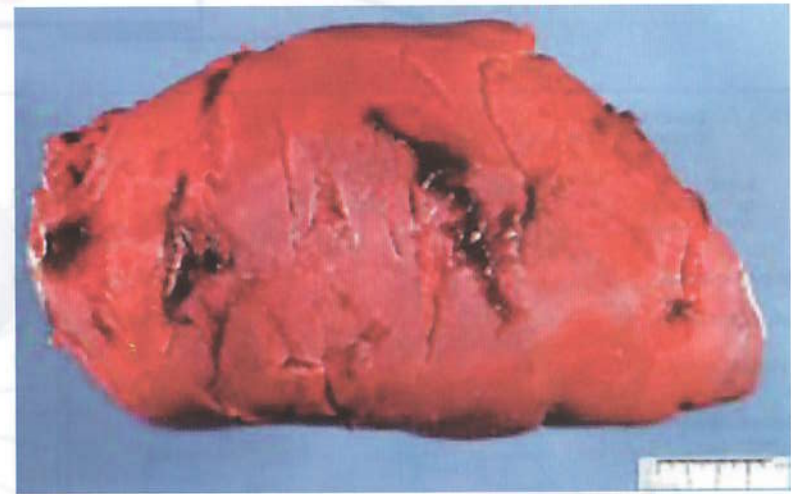


Anatomy of spleen

Splenic trauma



Splenic trauma



Rupture spleen

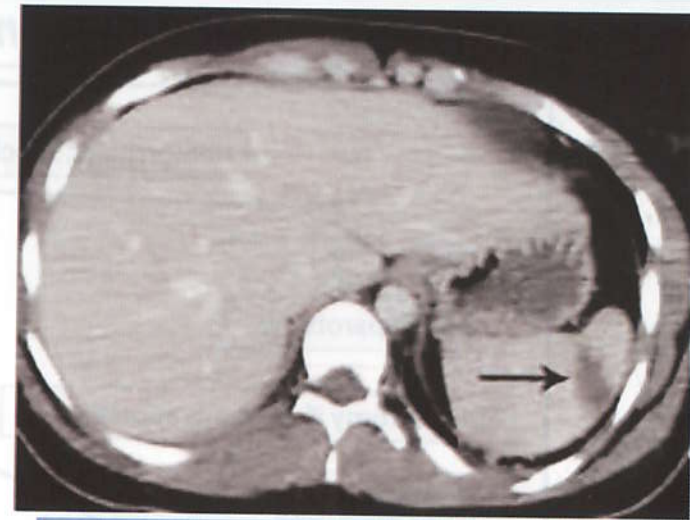


Cullen's sign





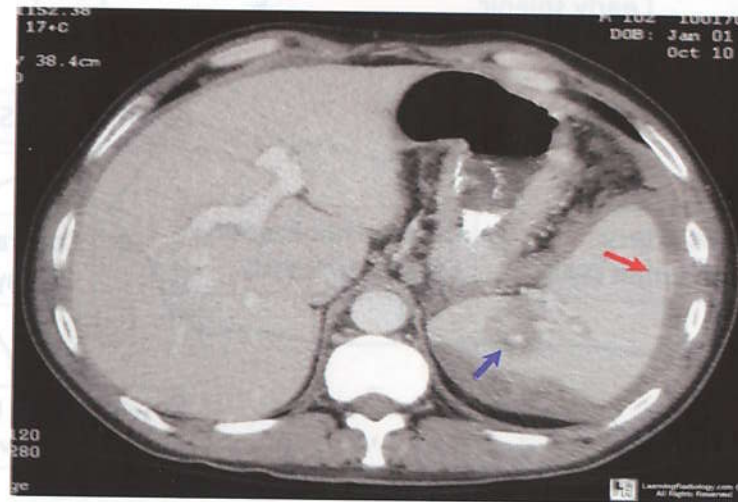
Grey turner's sign



CT scan showing splenic trauma

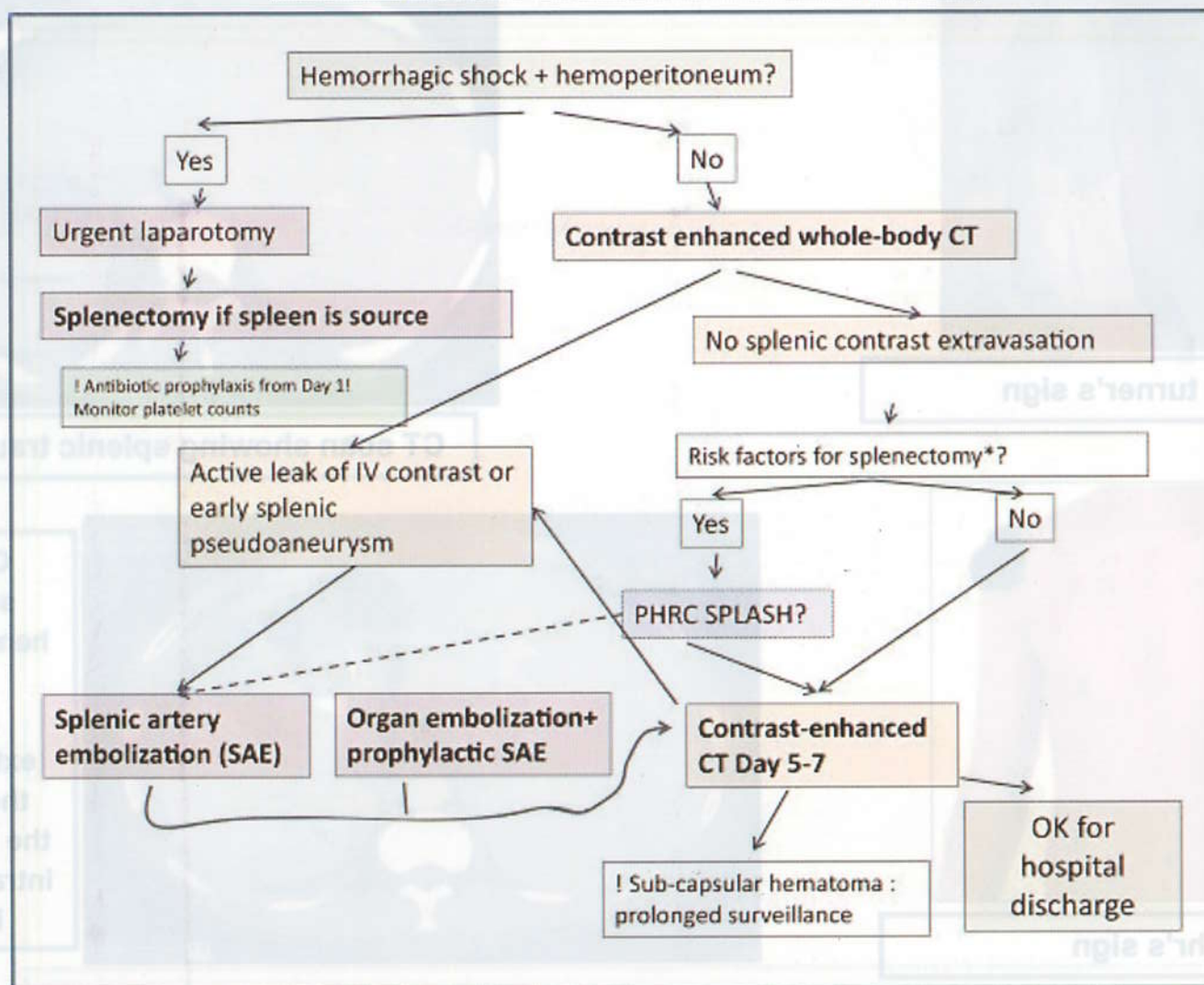


Kehr's sign



CT shows a subcapsular hematoma with a splenic laceration extending from the capsule to the hilum with an intraparenchymal hematoma

Management of abdominal injuries

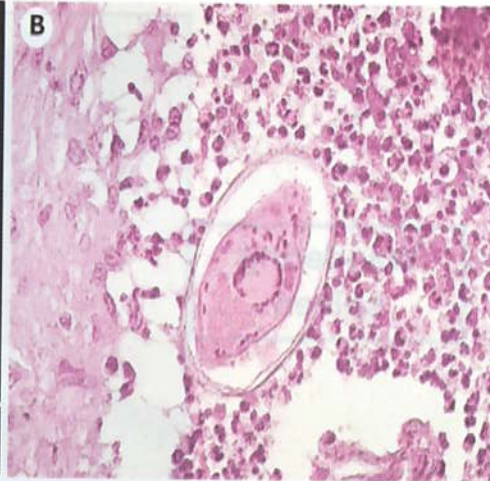
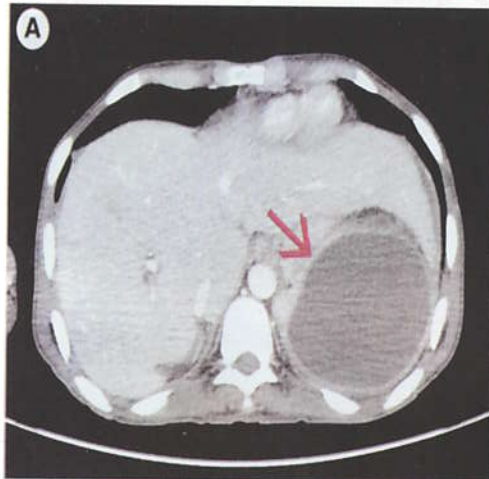
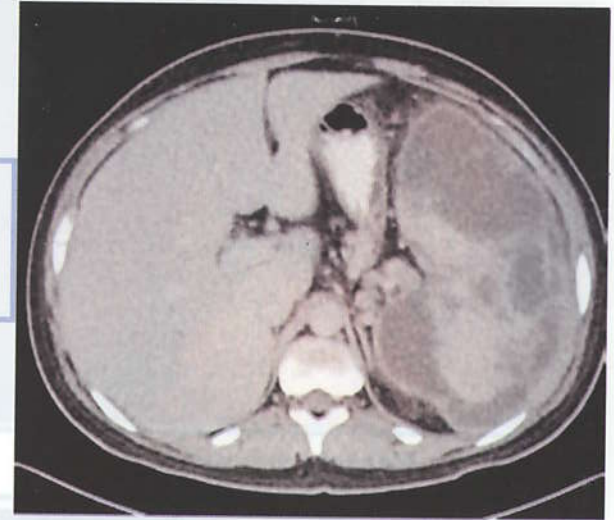


Infections & cysts of spleen

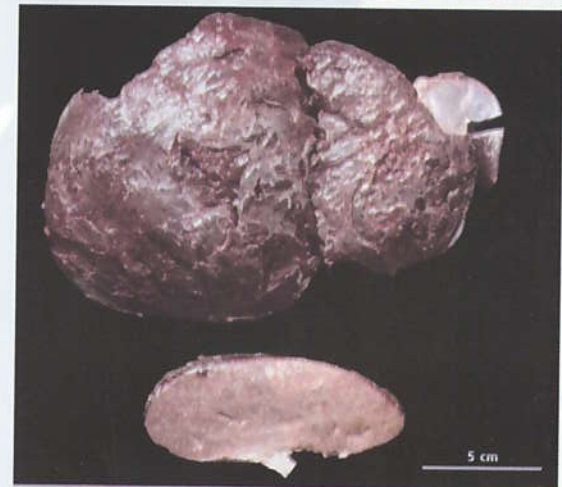
Splenic abscesses



CT scan showing splenic abscesses



Shistosoma mansoni eggs in spleen



Malarial spleen

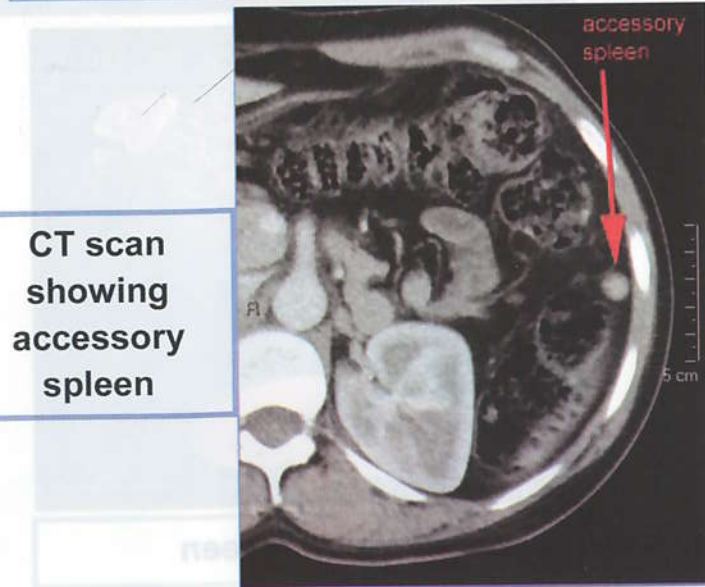
Congenital anomalies of spleen



Accessory spleen



Polysplenia



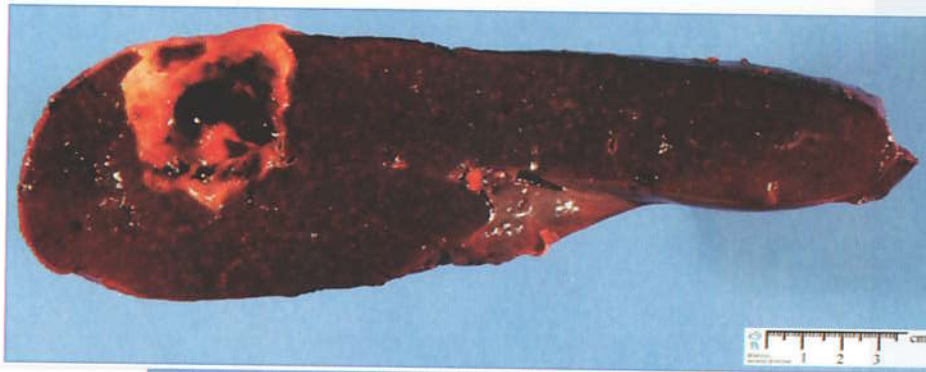
**CT scan
showing
accessory
spleen**



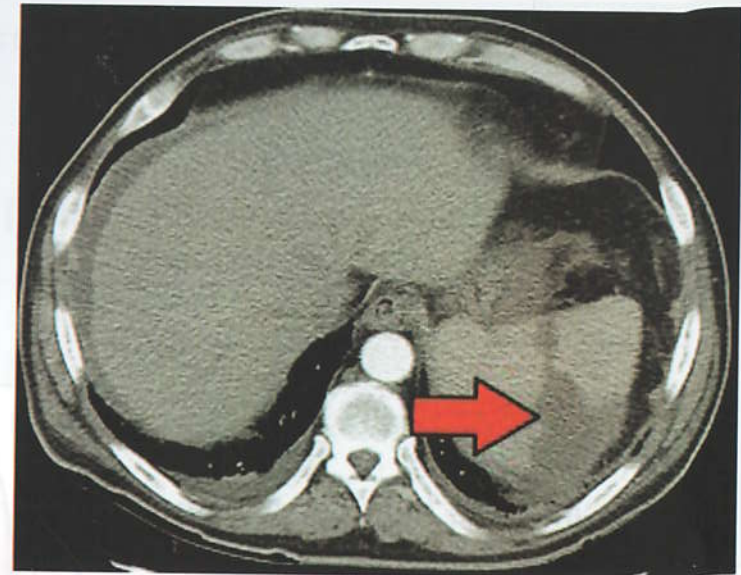
**Wandering
spleen**



Splenic infarction



Splenic infarction

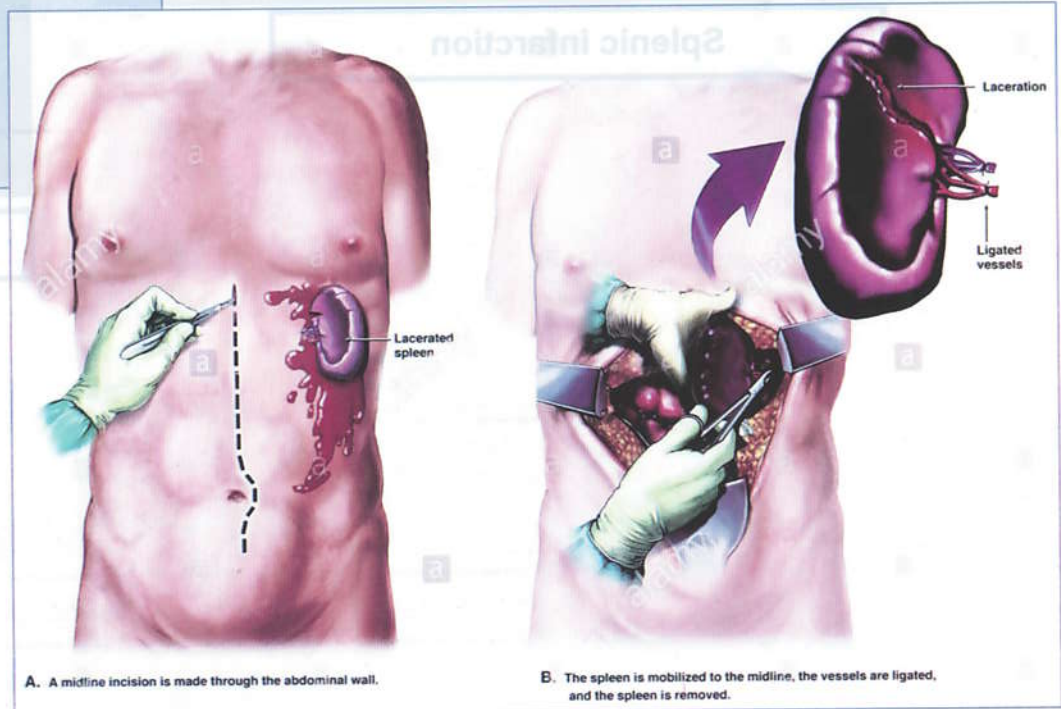


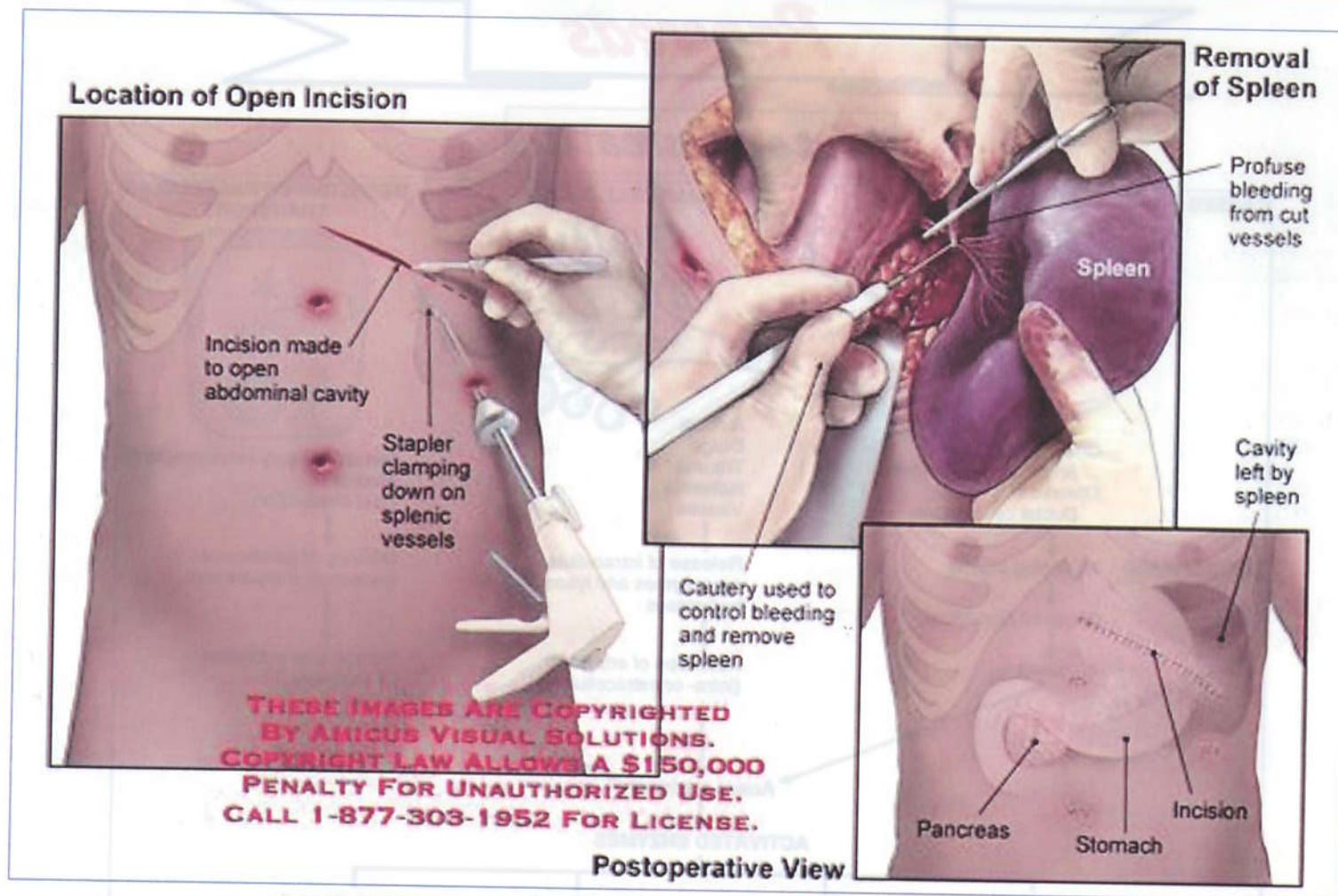
CT scan showing splenic infarction

Splenectomy

1. Trauma (usually blunt but it could be penetrating)
2. Cysts.
3. Congenital Hemolytic anemia:
 - A. Hereditary spherocytosis (most common)
 - B. Hereditary elliptocytosis
 - C. Thalassemia
4. Auto-immune
 - A. ITP
 - B. Auto-immune hemolytic anemia

Indications of splenectomy

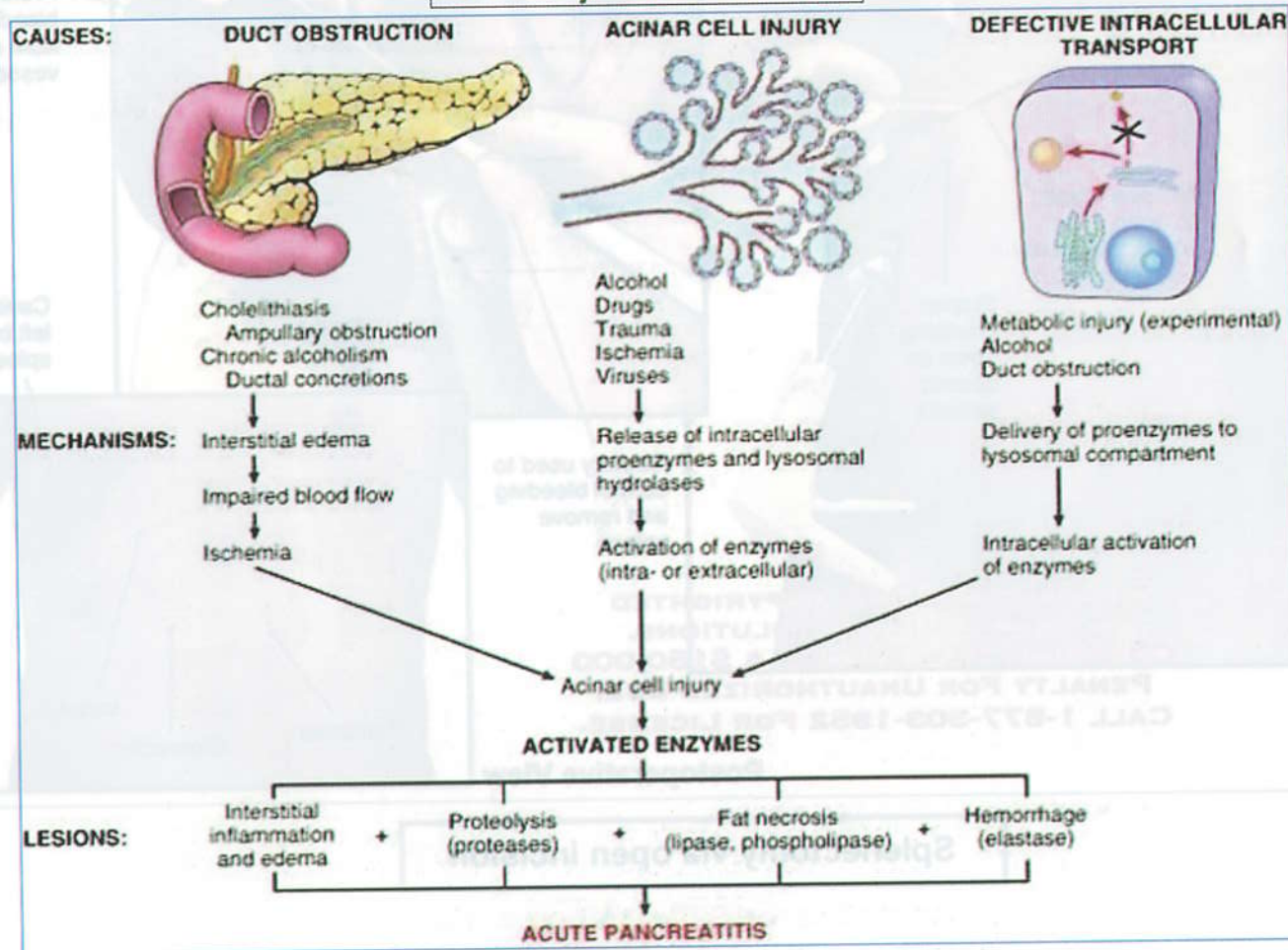


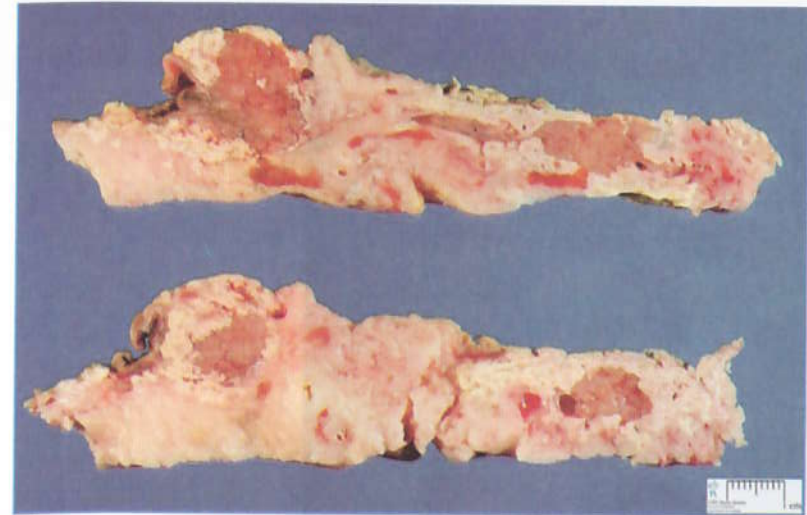
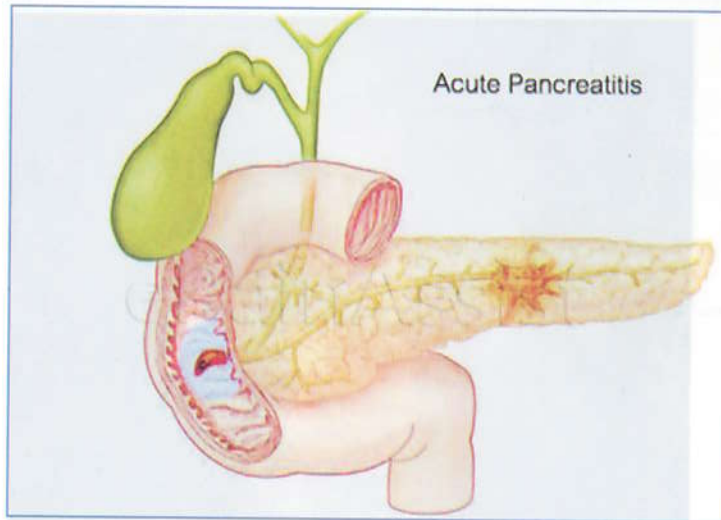


Splenectomy via open incision

Pancreas

Acute pancreatitis





Acute pancreatitis



Acute hemorrhagic pancreatitis



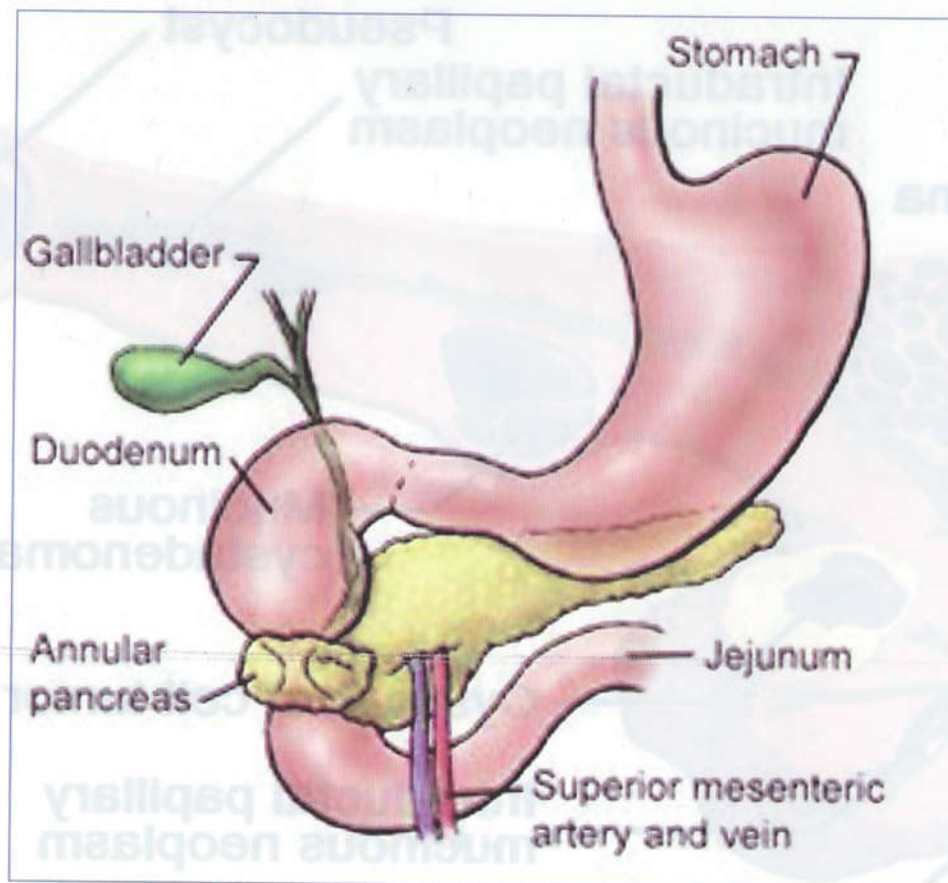
Colon cut off sign in pancreatitis



Sentinel loop in pancreatitis

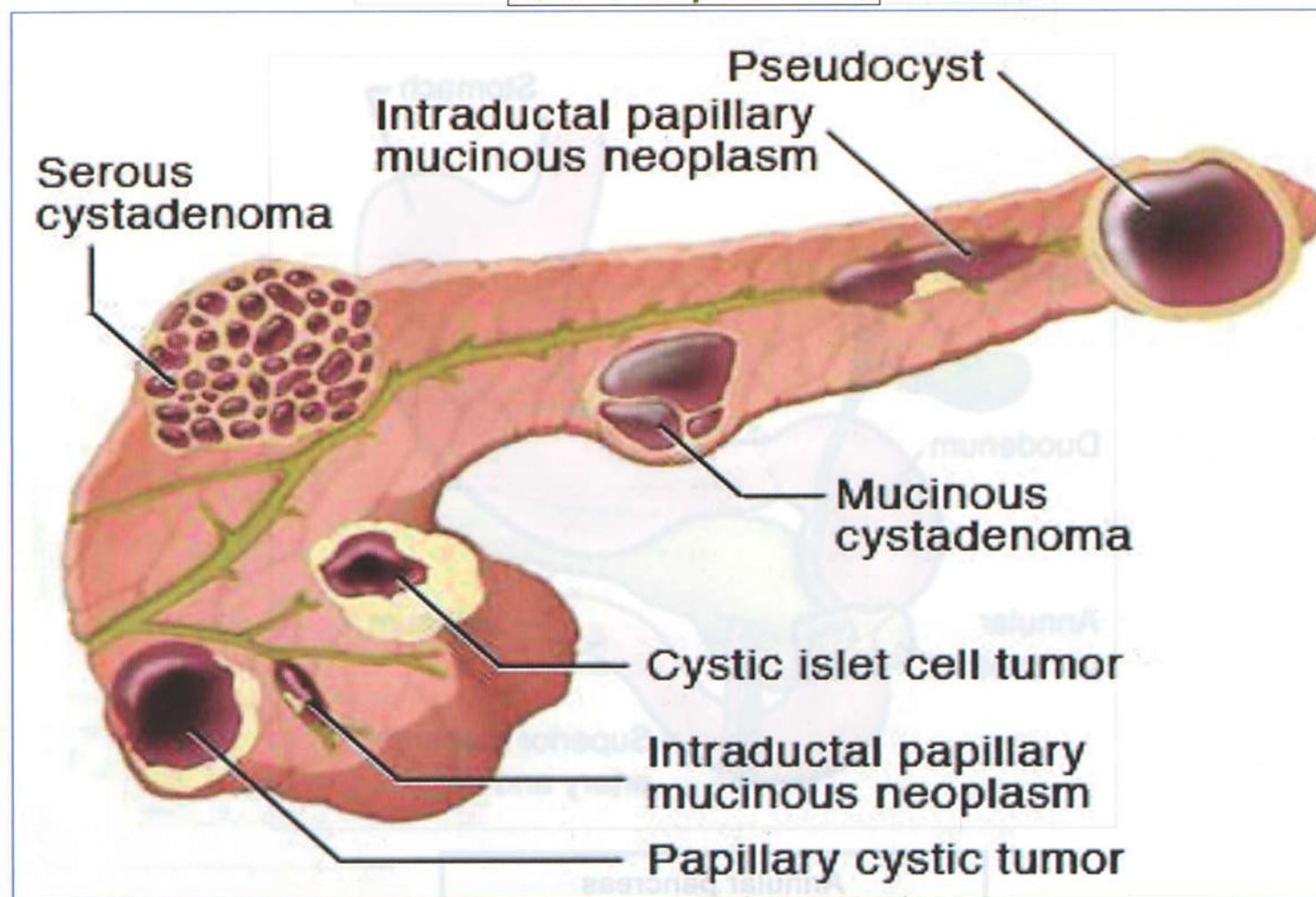


Congenital anomalies of pancreas

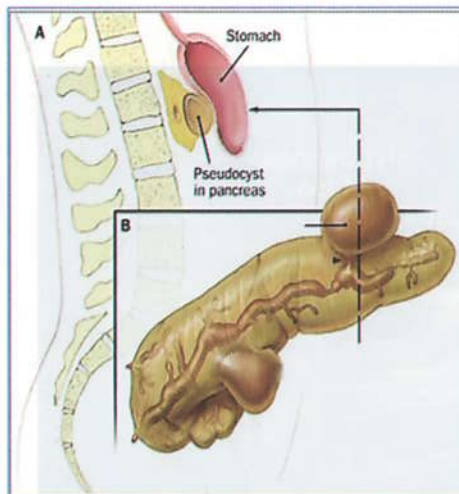


Annular pancreas

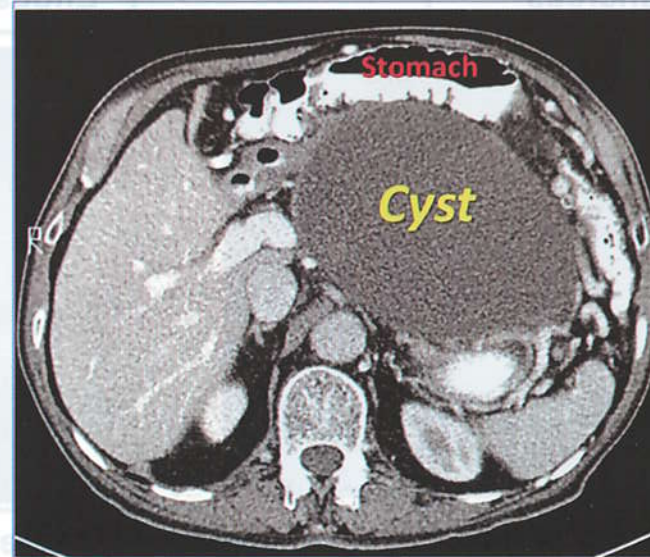
Cysts of pancreas



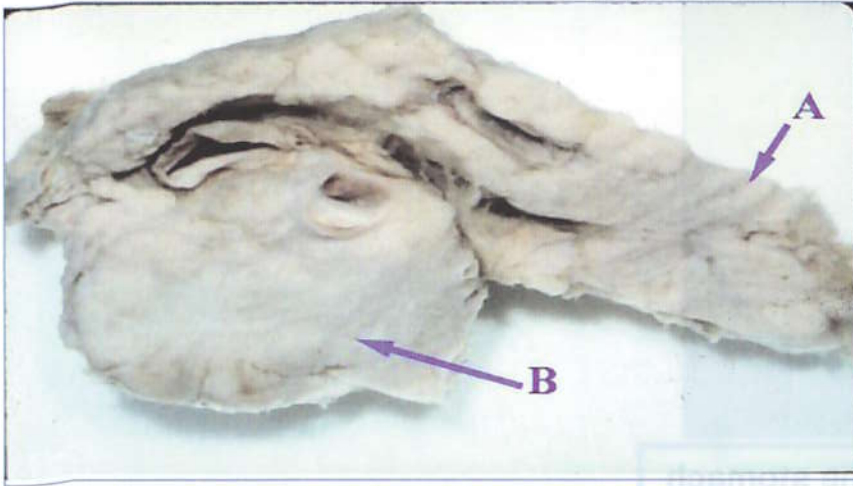
Cysts of pancreas



Ba meal showing pancreatic pseudocyst compressing the stomach



Carcinoma of pancreas



Cancer head of pancreas

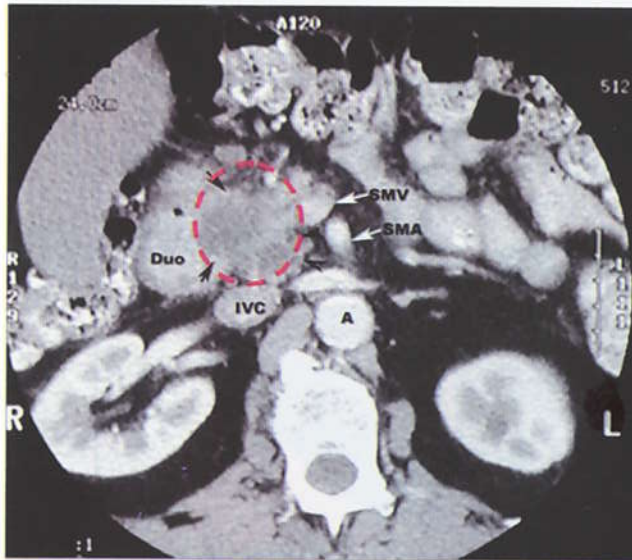


Endoscopic us of cancer head pancreas

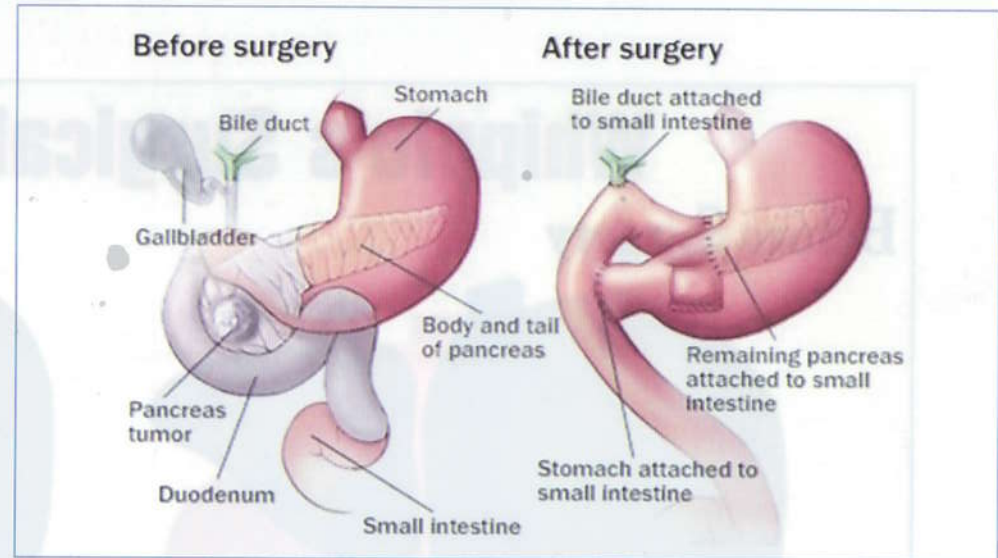


ERCP showing cancer head of pancreas





CT scan showing cancer head of pancreas



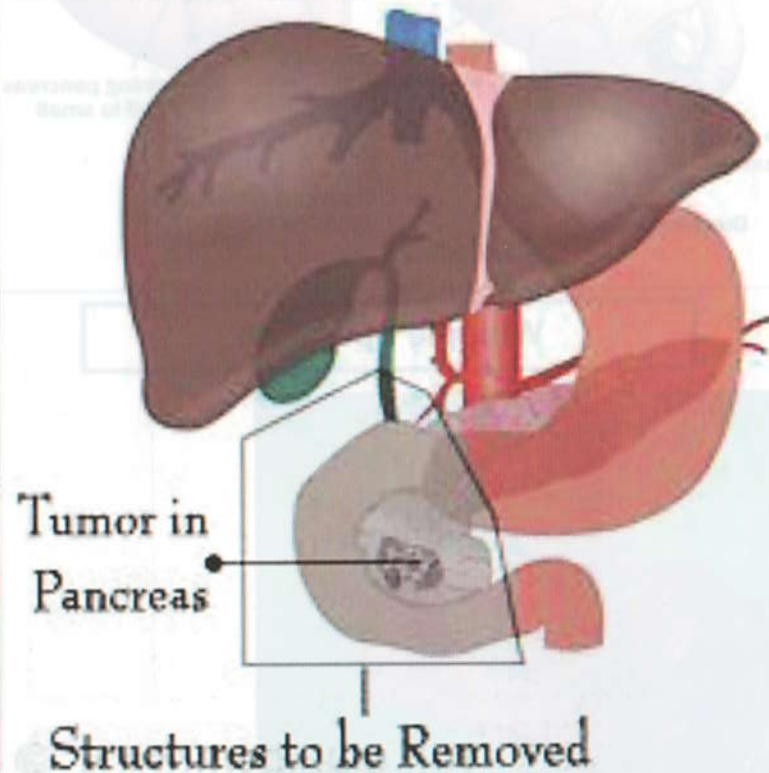
Whipple operation

Whipple operation, specimen:
Stomach, pancreas head &
duodenum

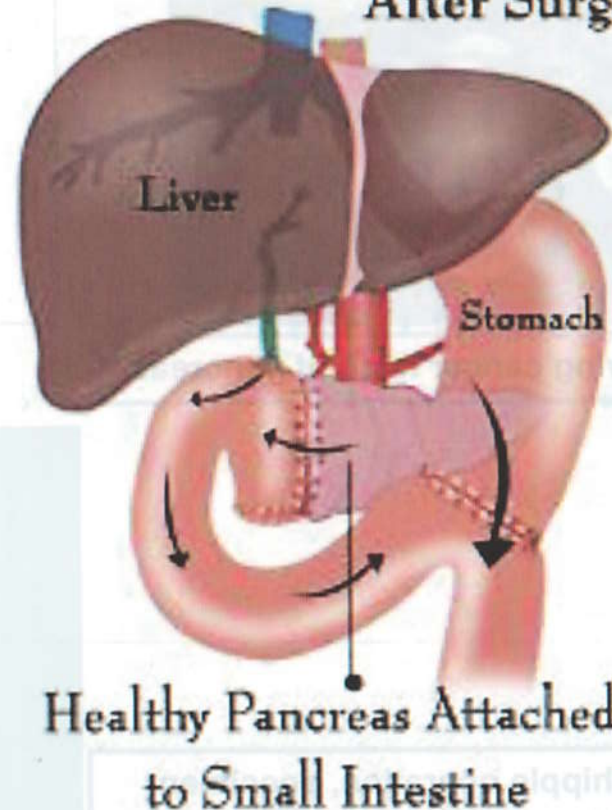


Whipple's Surgical Procedure

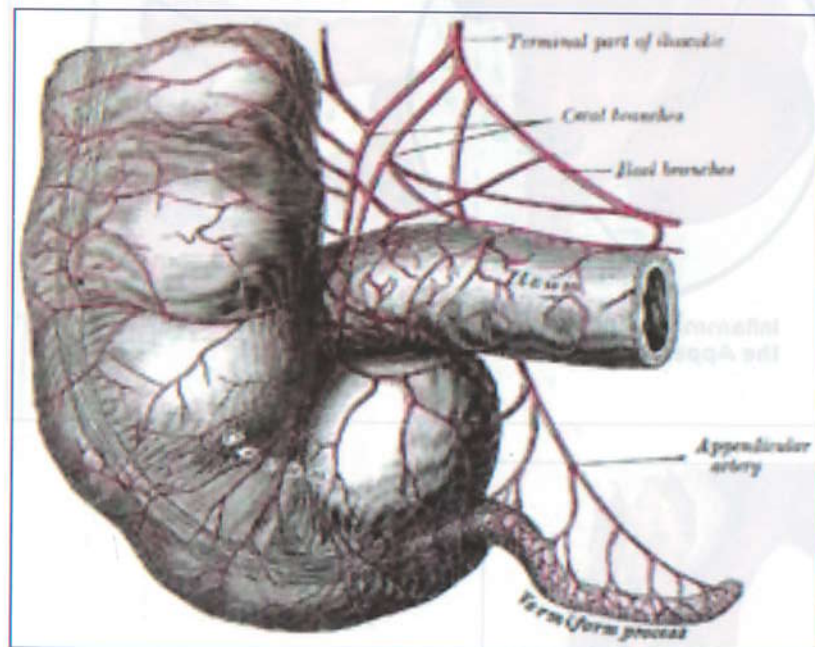
Before Surgery



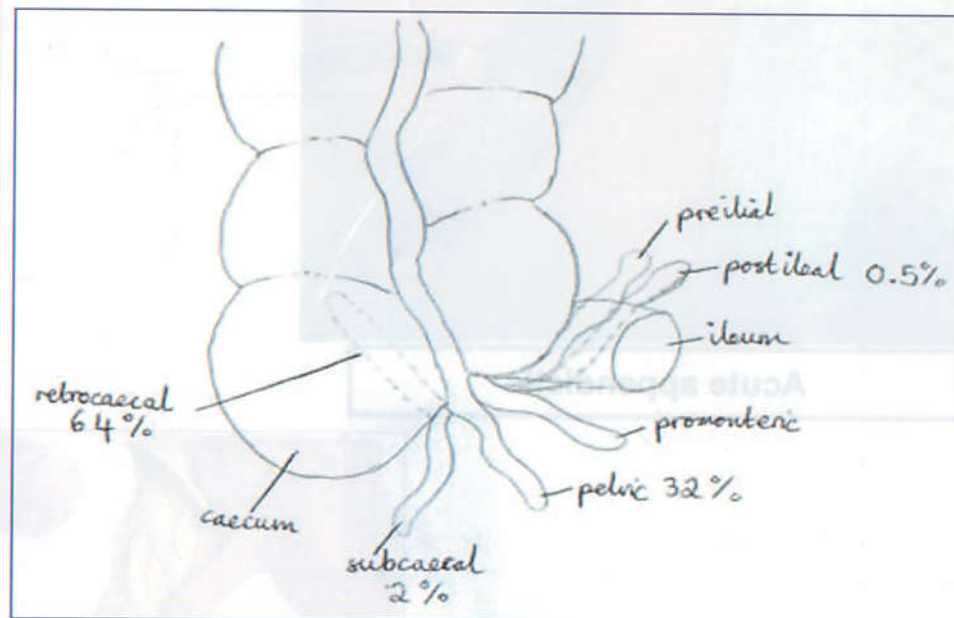
After Surgery



Appendix



Anatomy of appendix

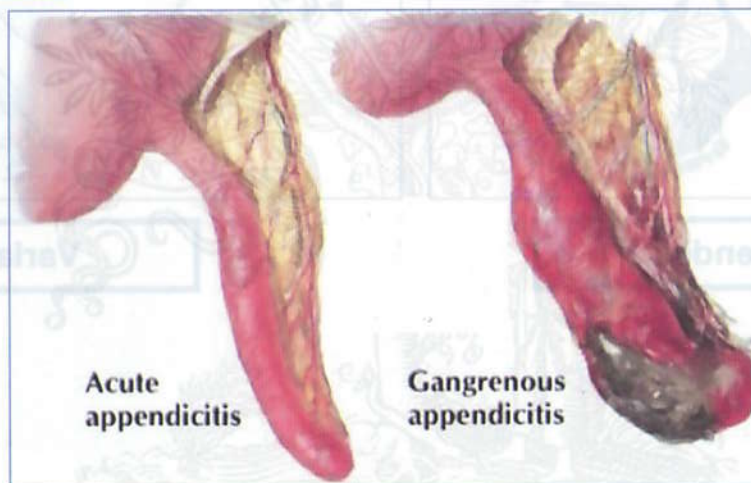
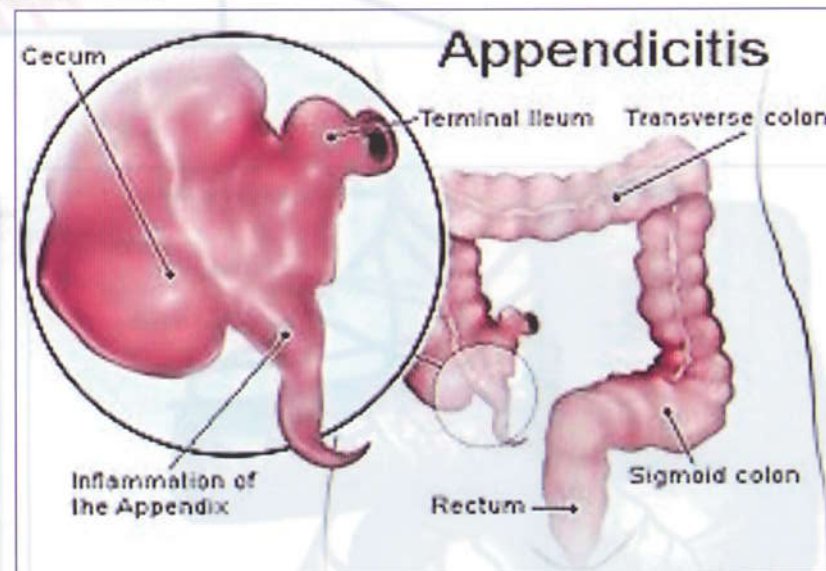


Variations of appendix

Acute appendicitis

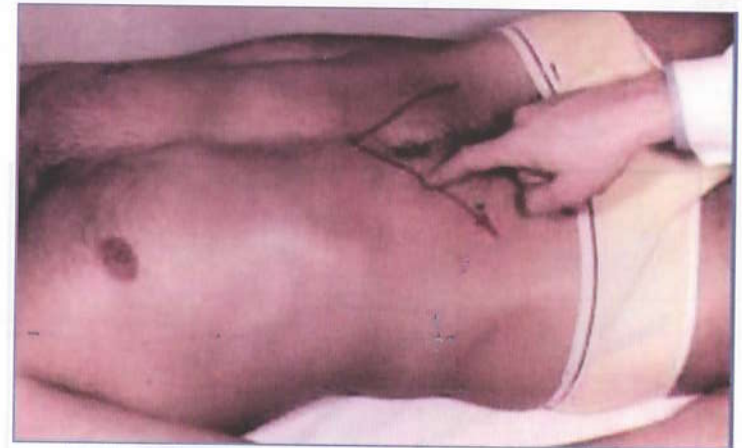


Acute appendicitis

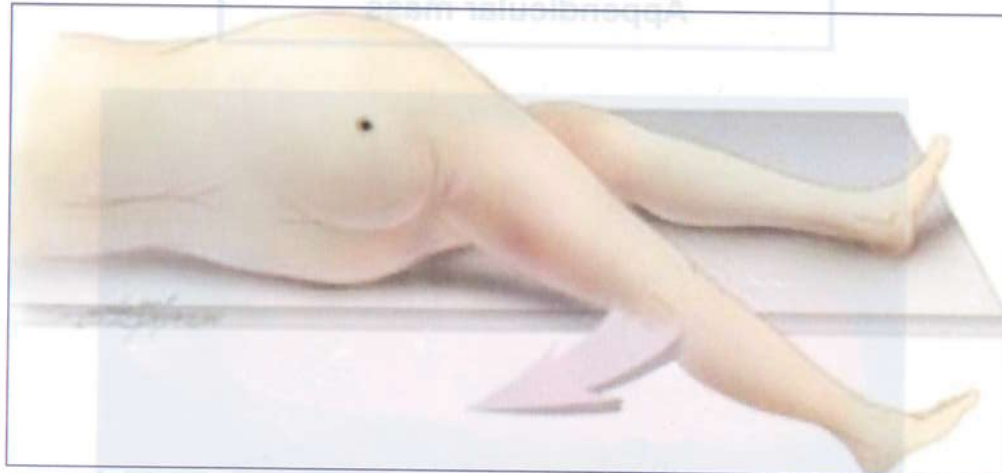




Sherren's triangle



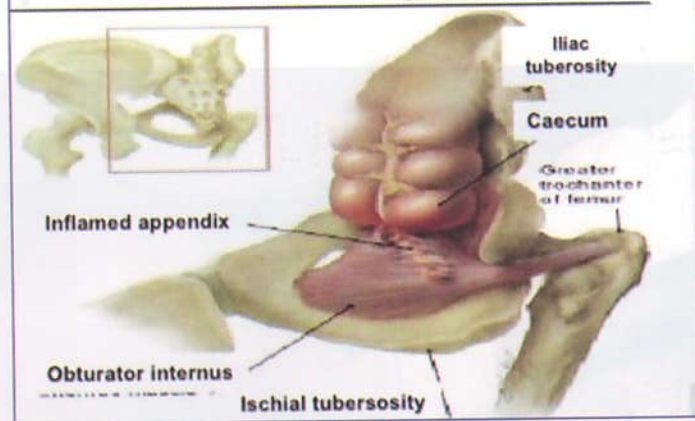
McBurney point



Psoas sign (retroperitoneal retrocecal appendix)



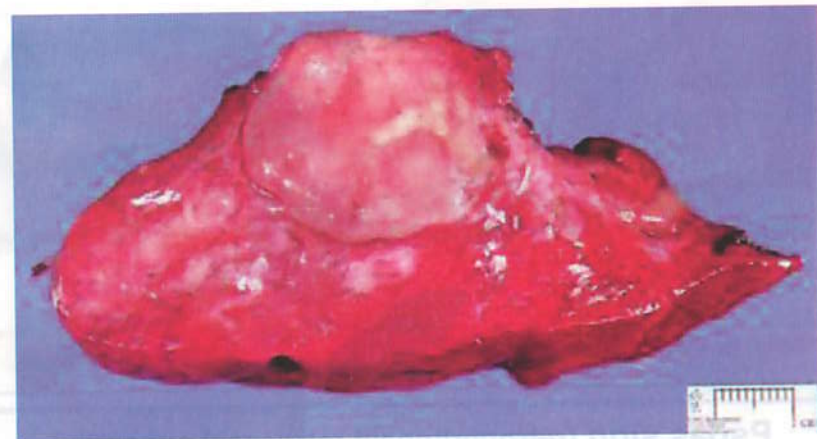
Rovsing's sign

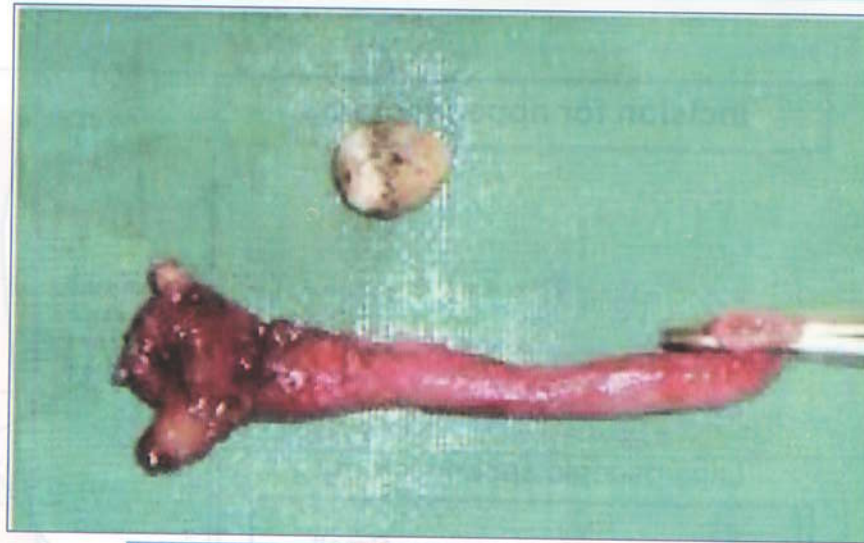


Obturator's sign



Appendicular mass



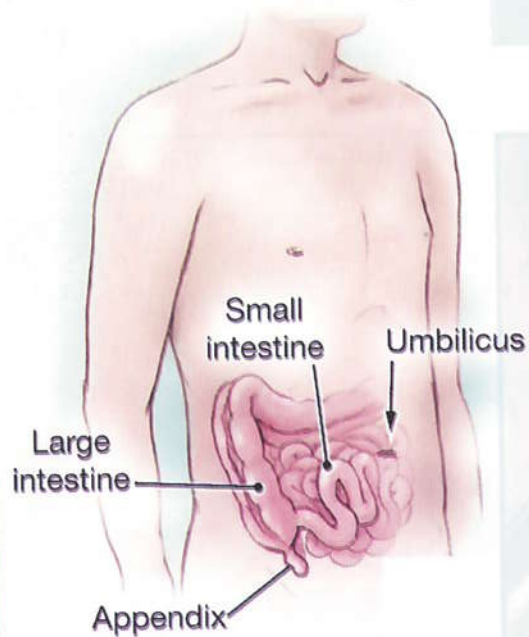


Perforated appendix

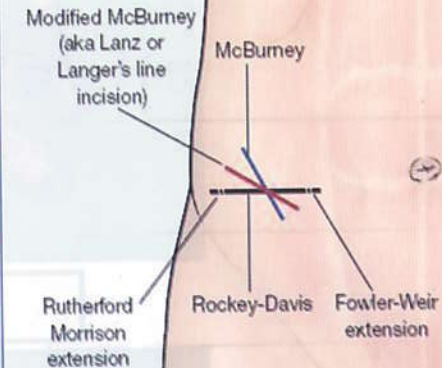
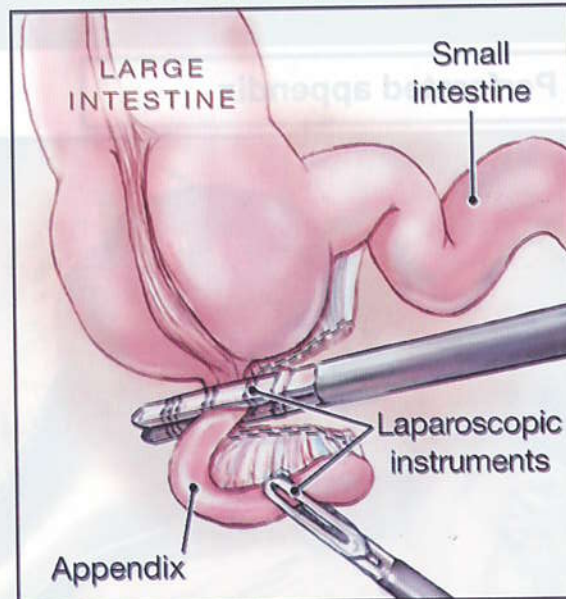


Incision for appendectomy

Normal anatomy



Laparoscopic appendectomy

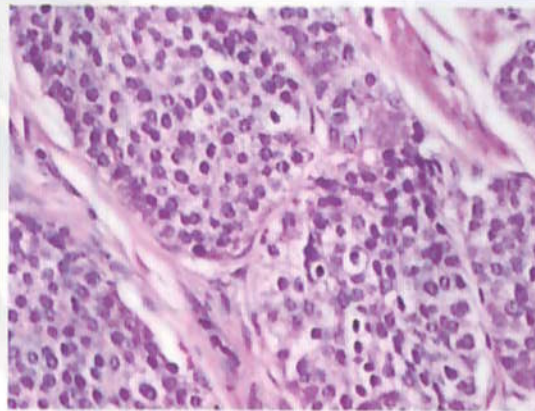


Appendectomy

Tumors of the appendix



Gross

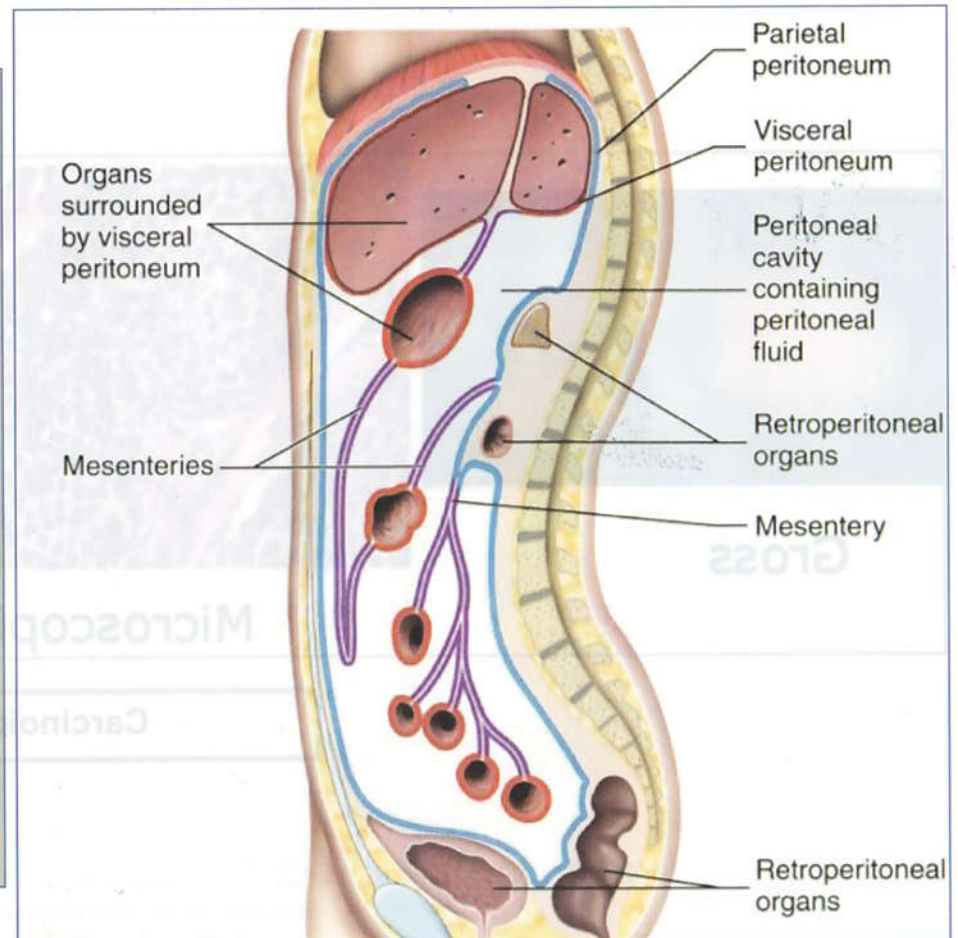
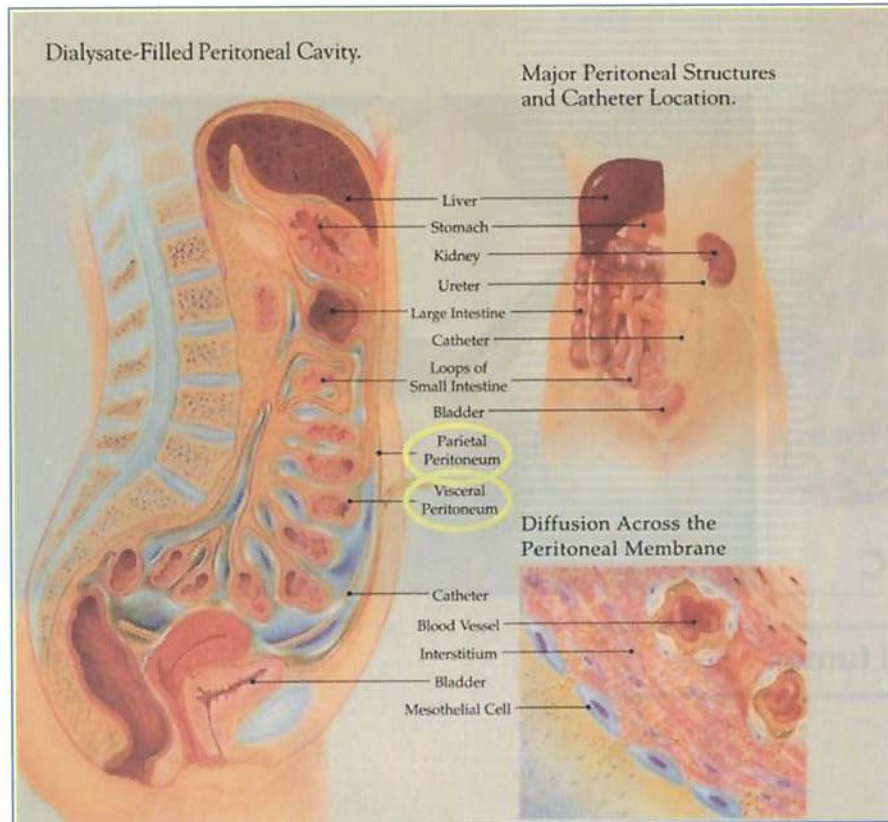


Microscopic

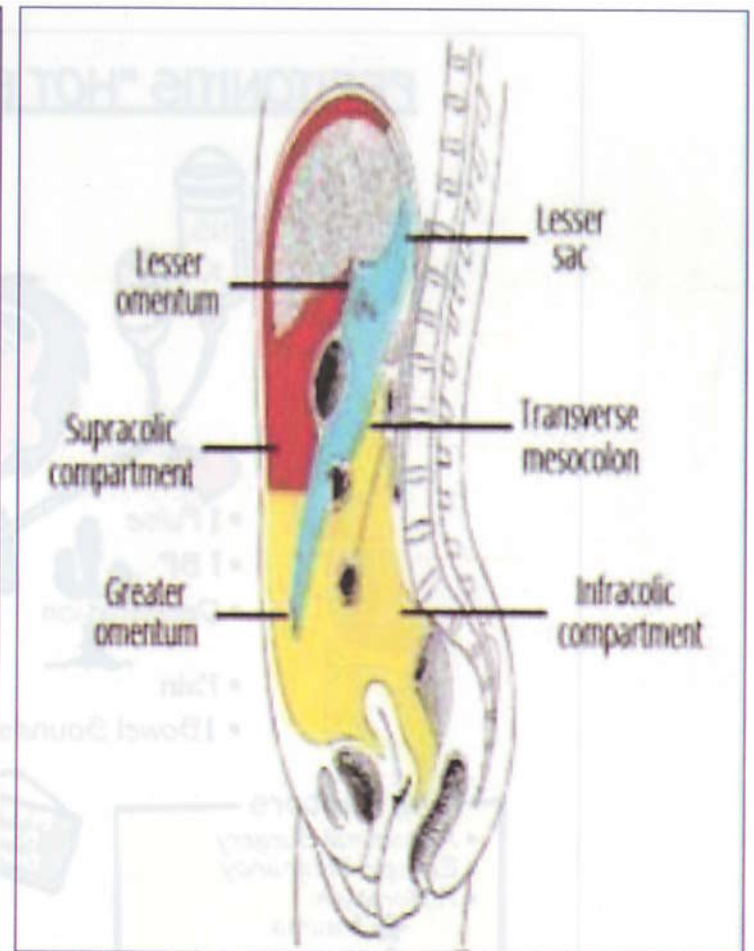
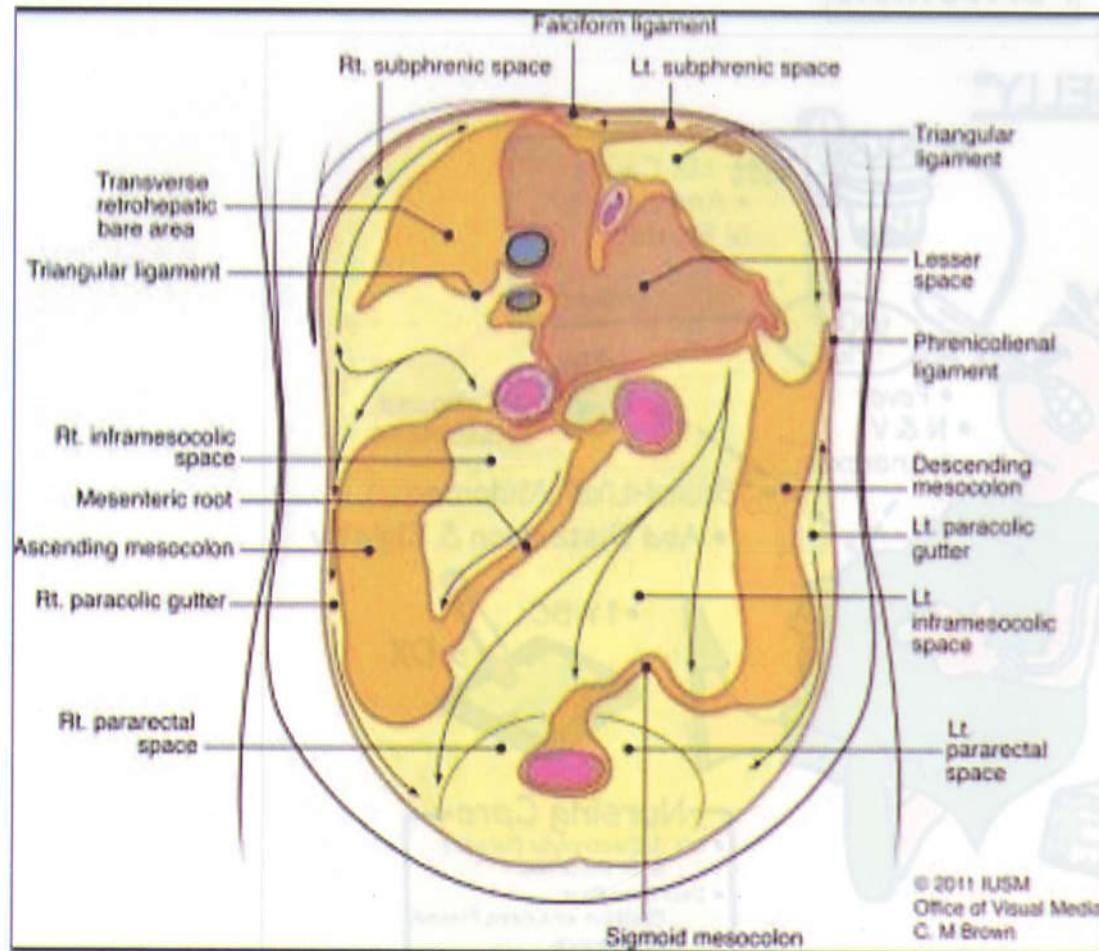


Carcinoid tumor

Peritoneum

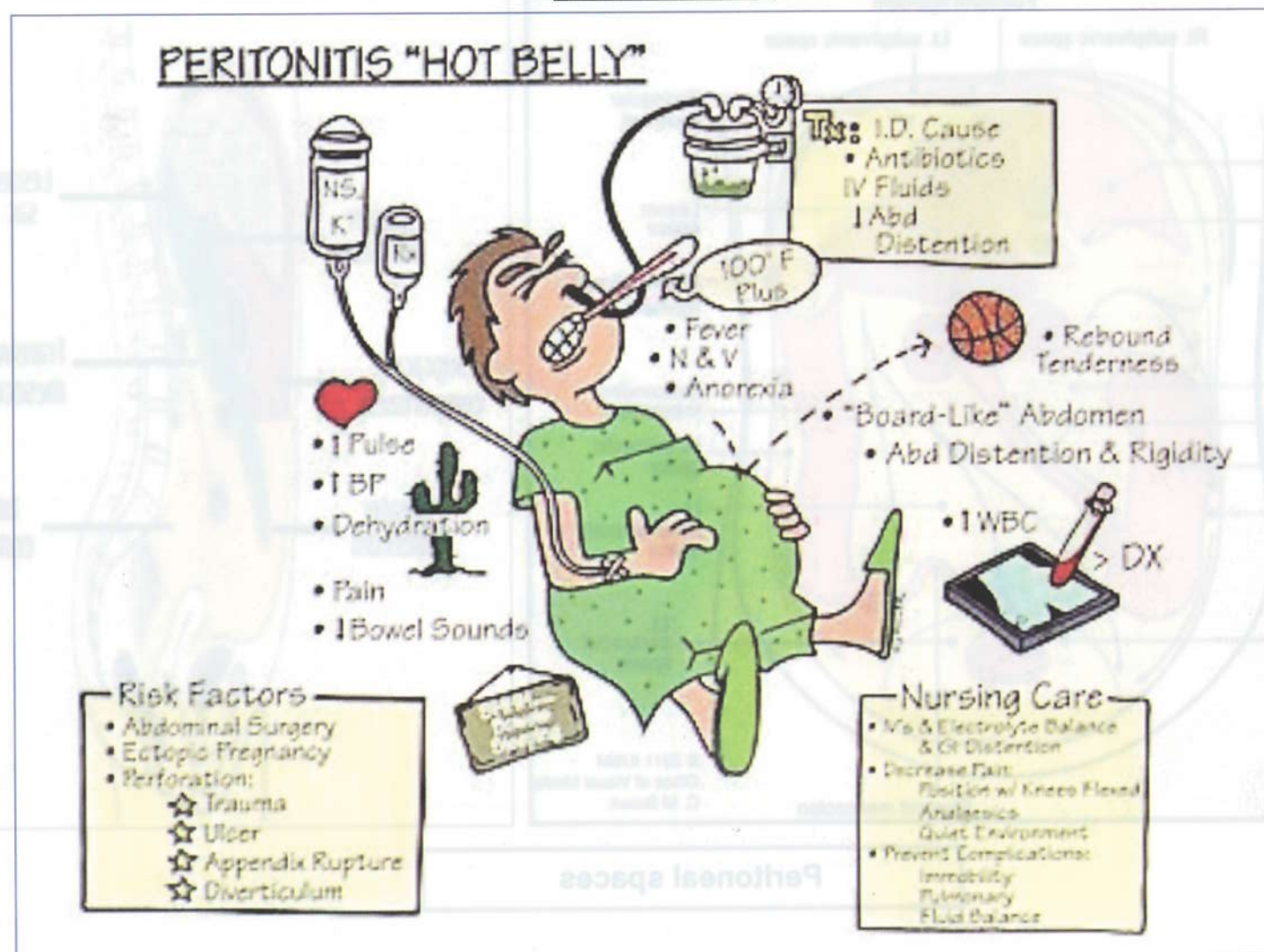


Anatomy of the peritoneum

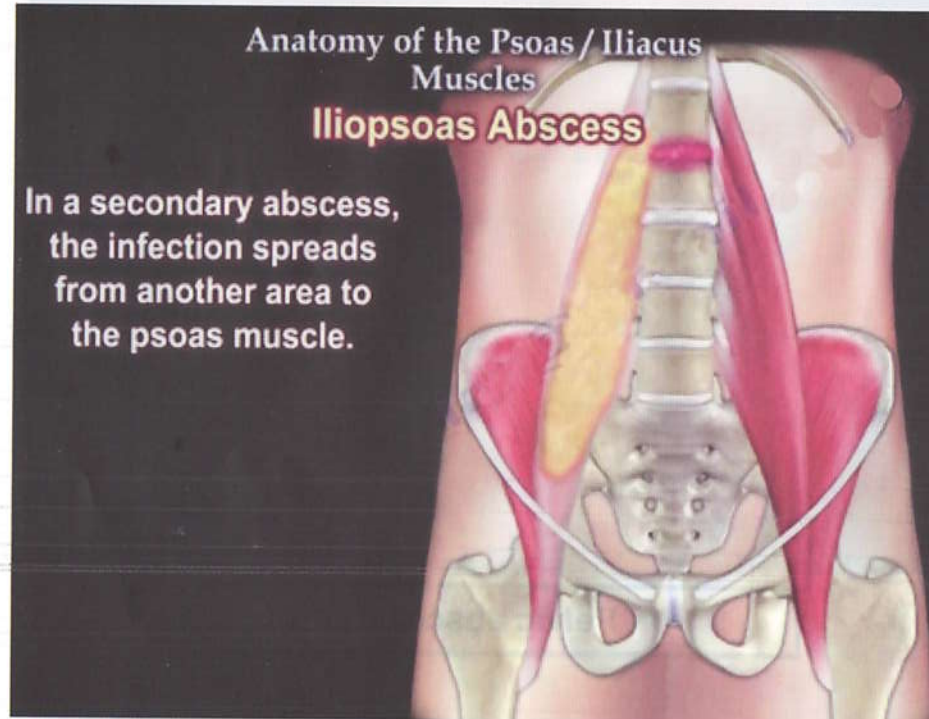


Peritoneal spaces

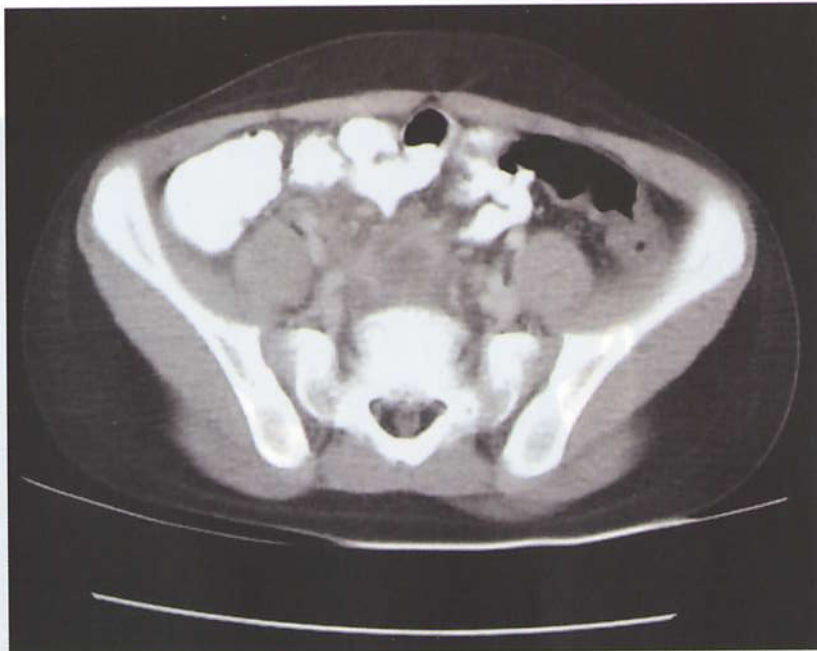
Peritonitis



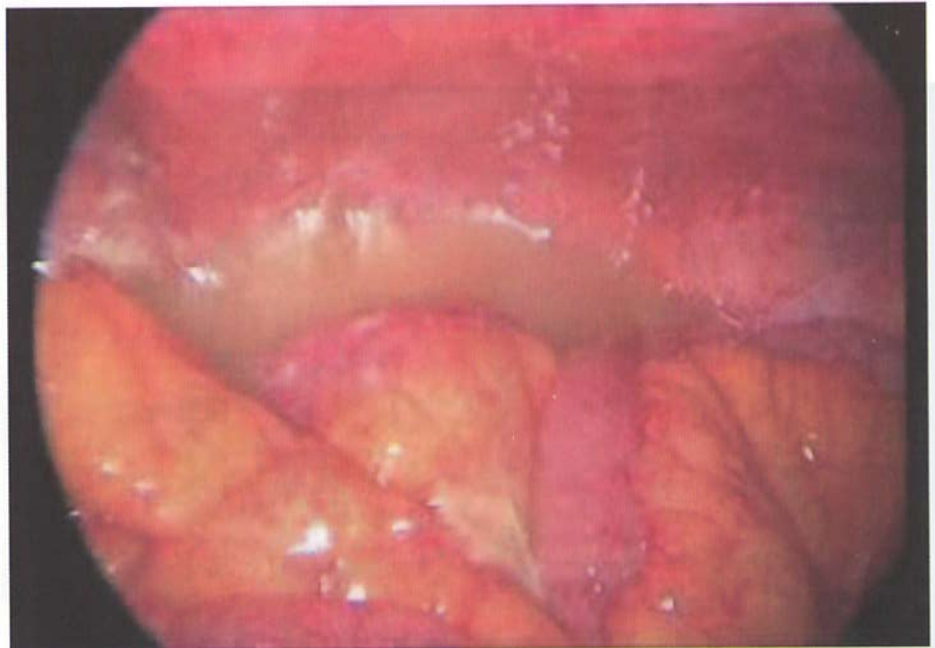
Iliopsoas Abscess & pelvic abscess



CT showing iliopsoas abscess

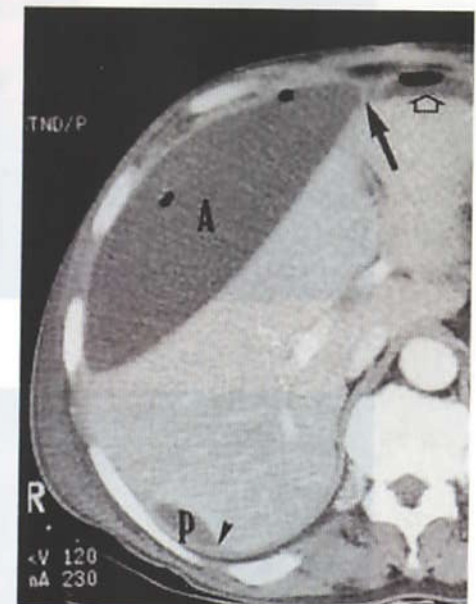
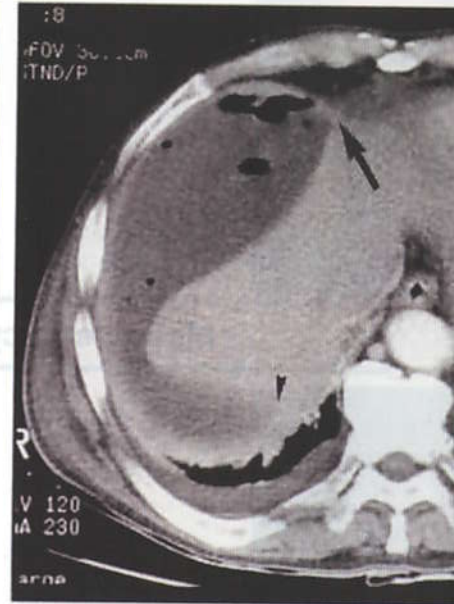
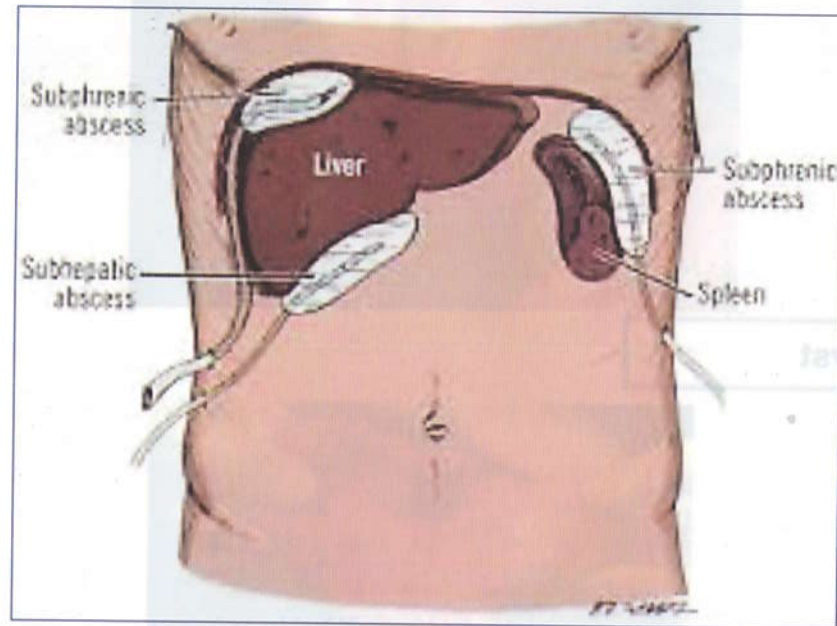


CT scan showing pelvic abscess



Pelvic abscess

Subphrenic abscess

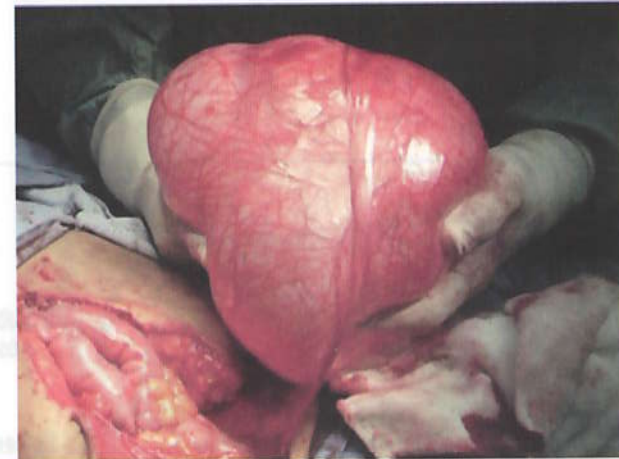
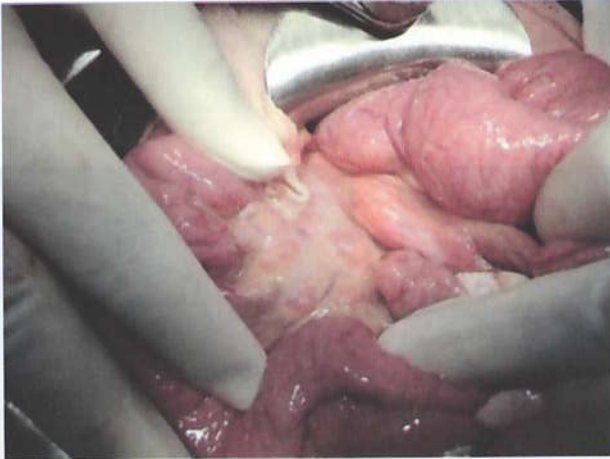


CT scan showing subphrenic abscess

Mesenteric cyst with inflamed & edematous bowel loops

Enterogenous mesenteric cyst

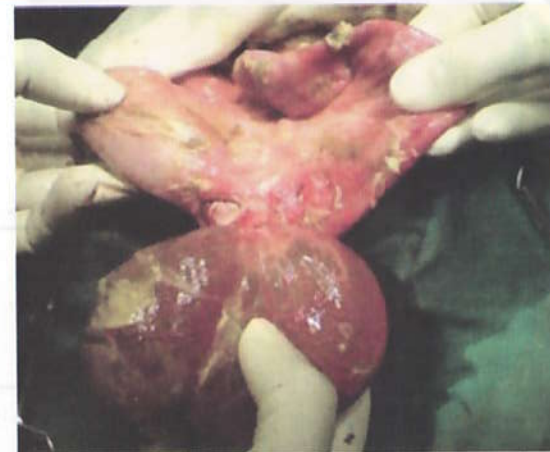
Mesenteric cysts



Mesenteric cyst

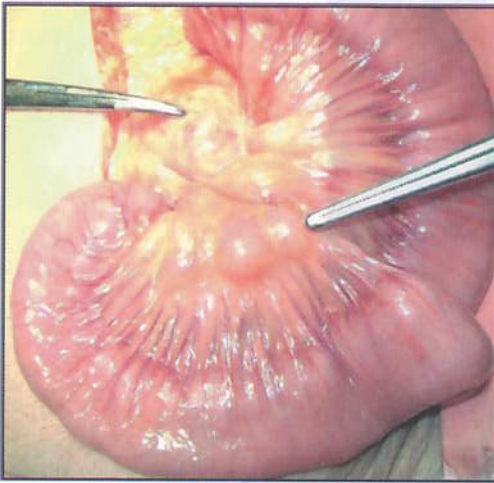


Enterogenous mesenteric cyst

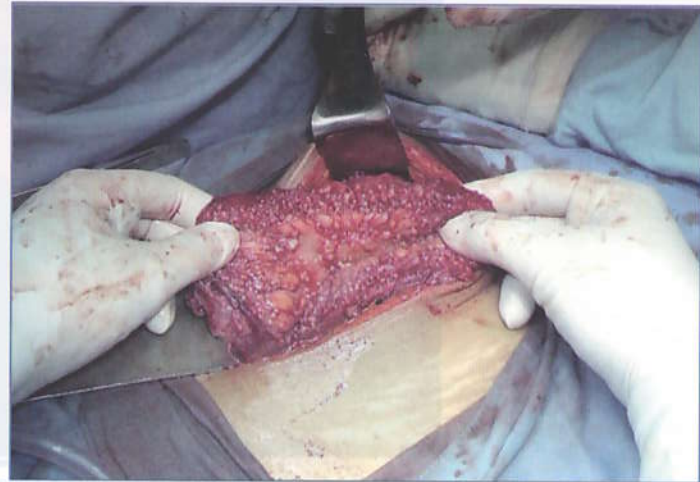


Mesenteric cyst with inflamed & edematous bowel loops

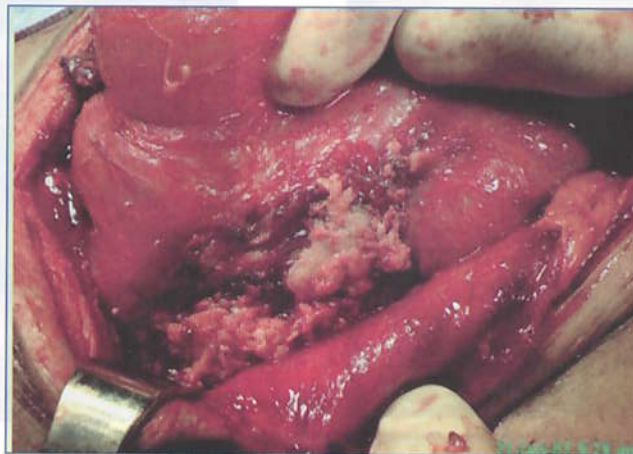
Mesenteric Lymphadenitis & Tabes Mesenterica



Mesenteric Lymphadenitis

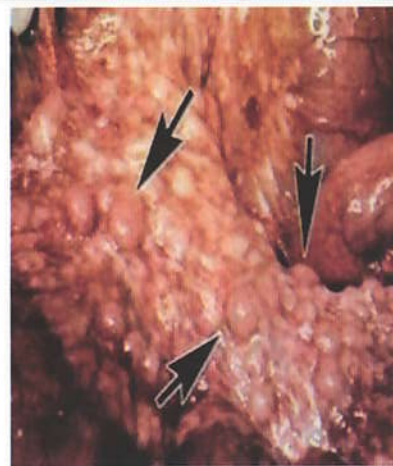


Intraoperative picture of TB peritonitis



Tuberculous peritonitis

Peritoneal tumors & Retro- Peritoneal tumors



Mesothelioma



Pseudo-myxoma-peritonii



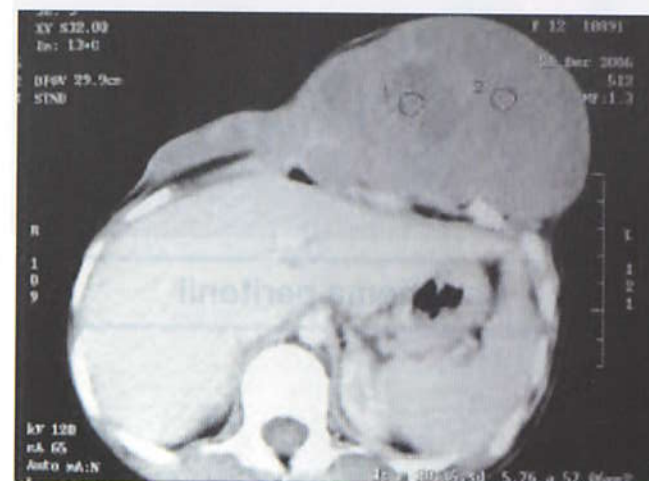
Retroperitoneal sarcoma



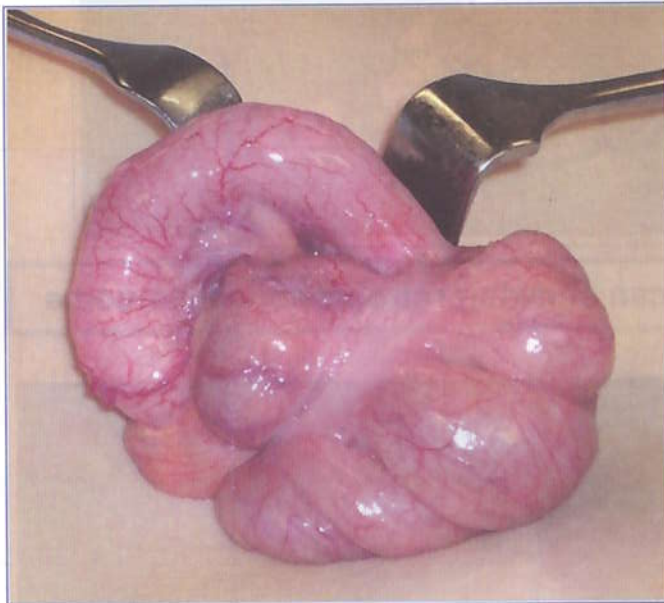
CT scan showing retroperitoneal sarcoma



Desmoid tumor



CT scan showing desmoid tumor



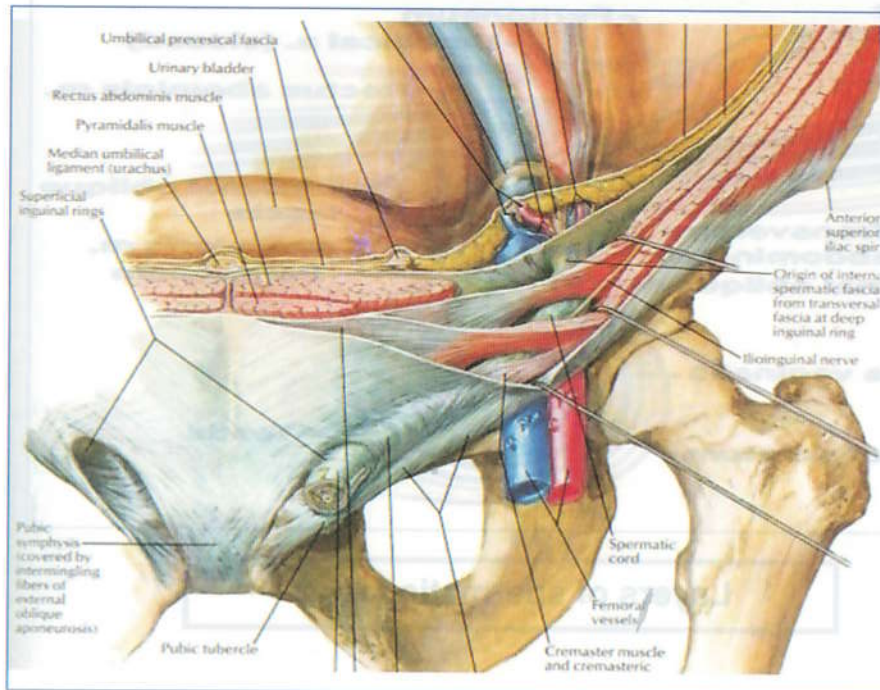
Carcinoma peritonii



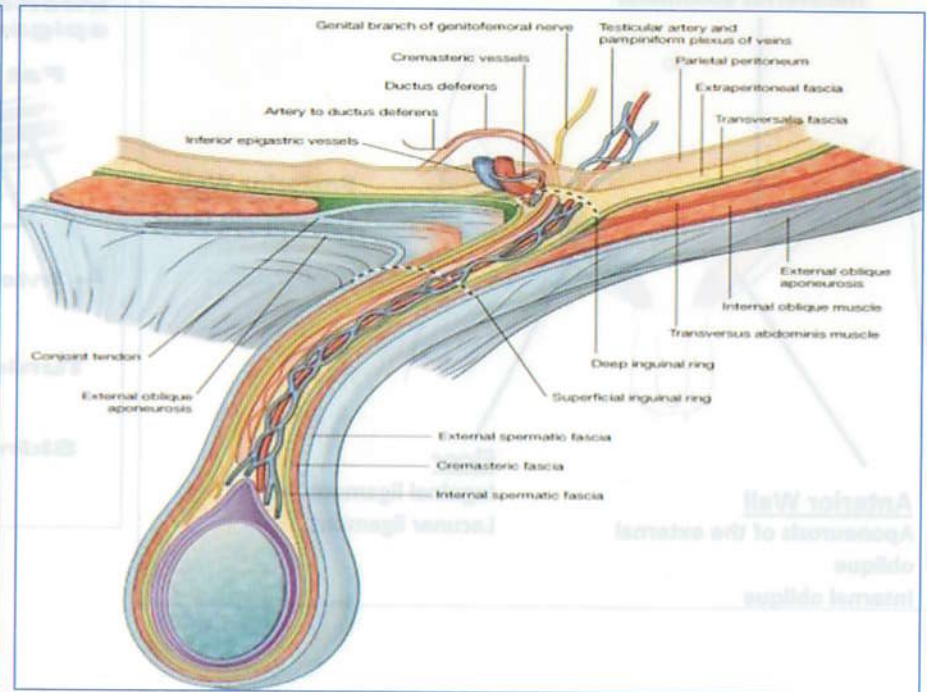
Chylolymphatic cystcarcnoid tumor

Hernia

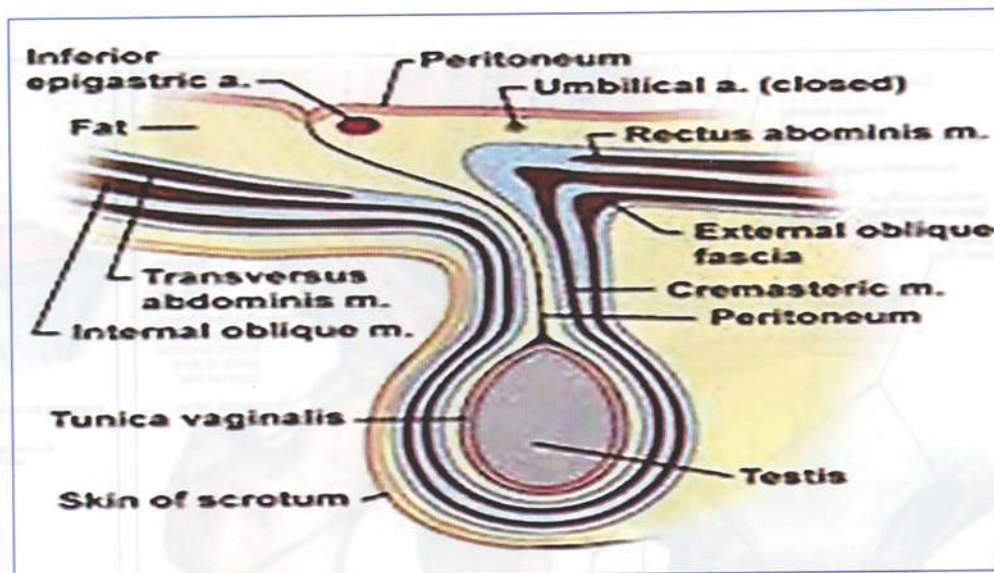
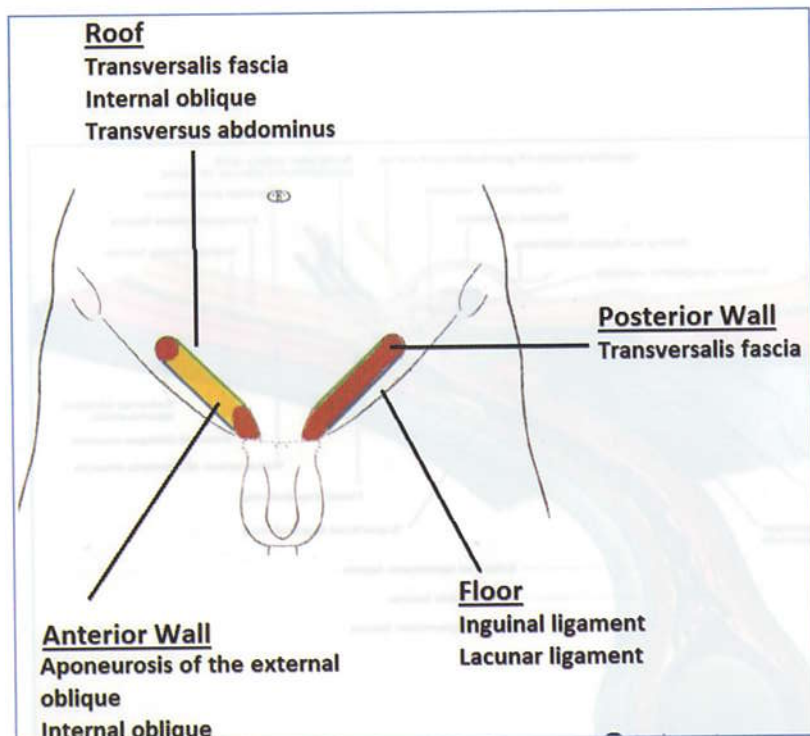
Anatomy



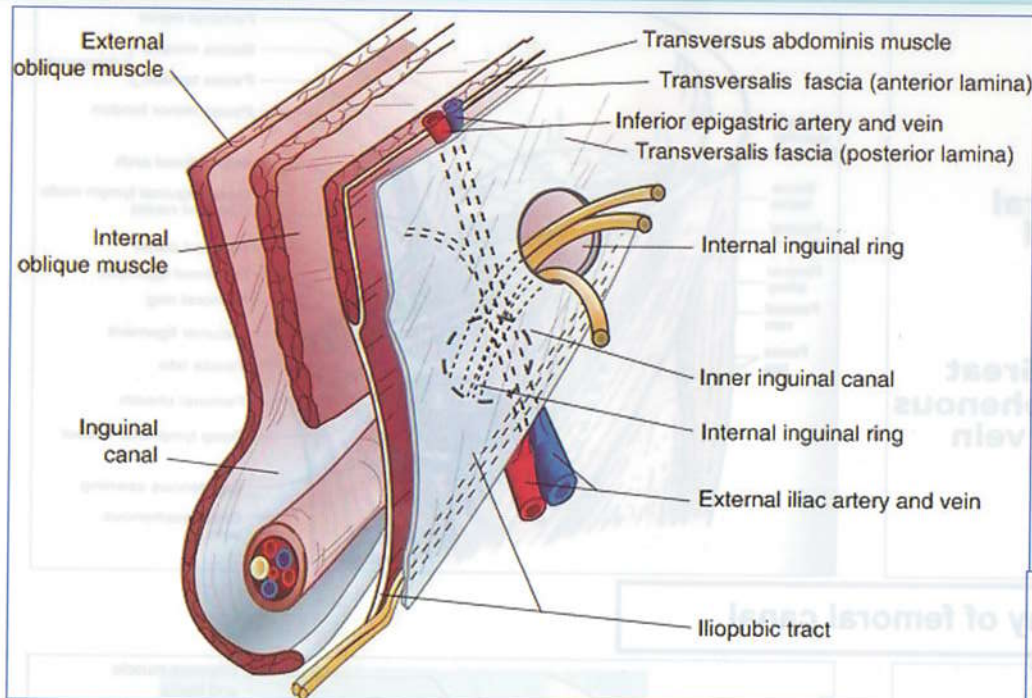
Anatomy of inguinal canal



Surgical anatomy of inguinal canal



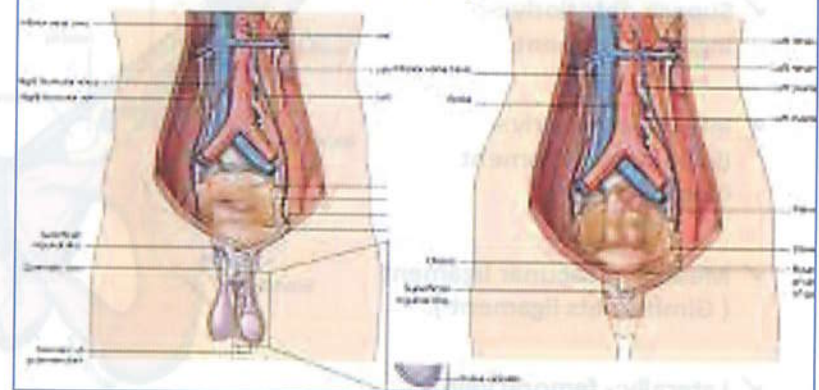
Layers of spermatic fascia

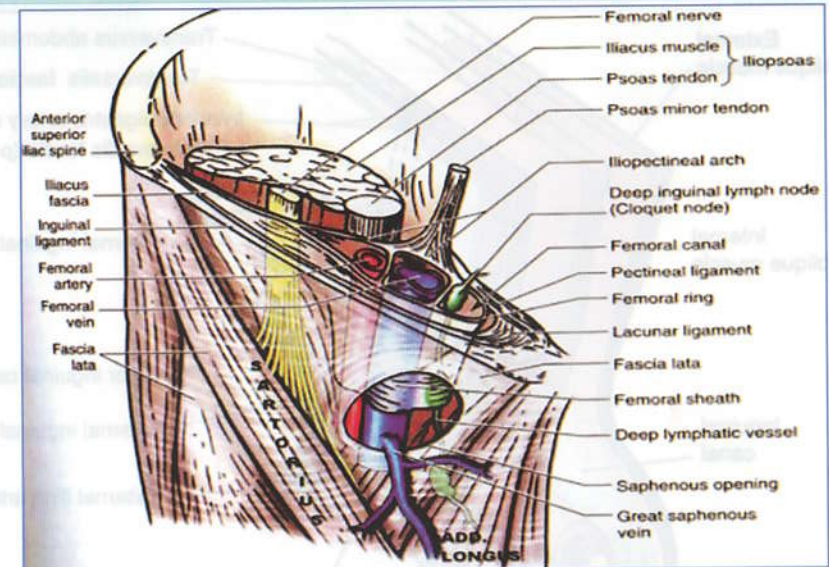
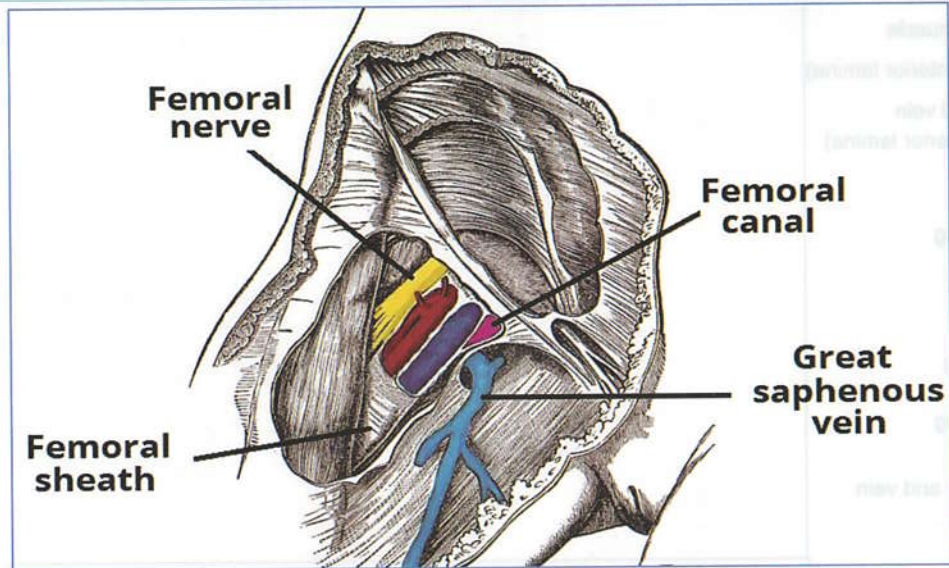


Anatomy of inguinal canal

Function of inguinal canal

In males, it allows structures of spermatic cord to pass to and from the testis to the abdomen.
In females it allows round ligament of the uterus to pass from uterus to labium majus.



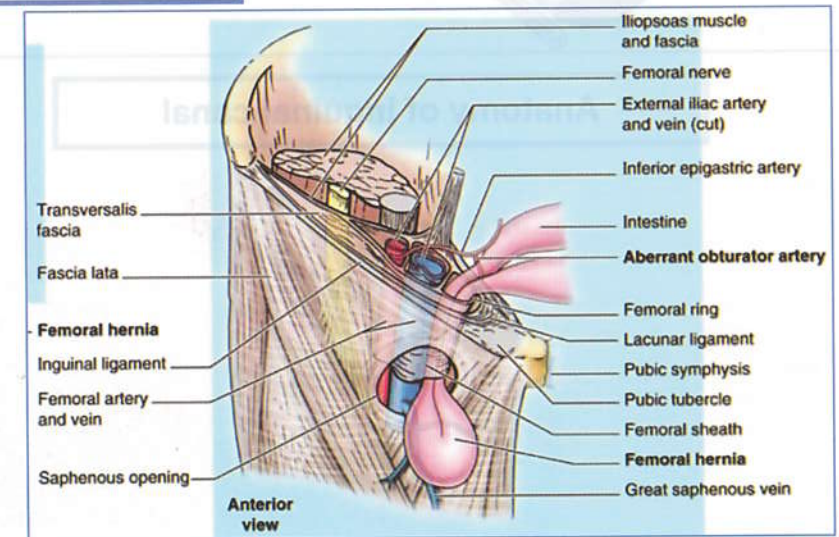
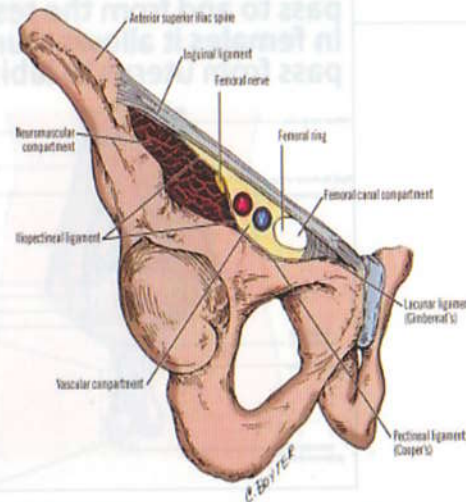


Anatomy of femoral canal

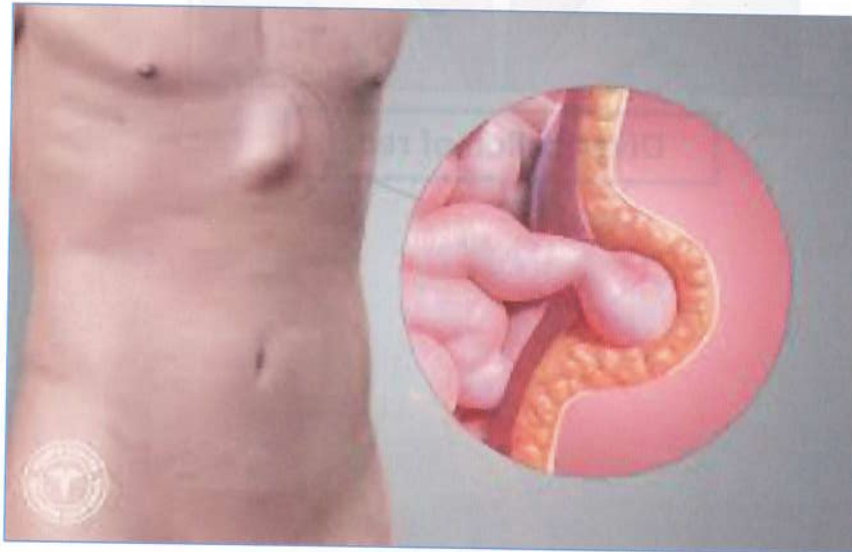
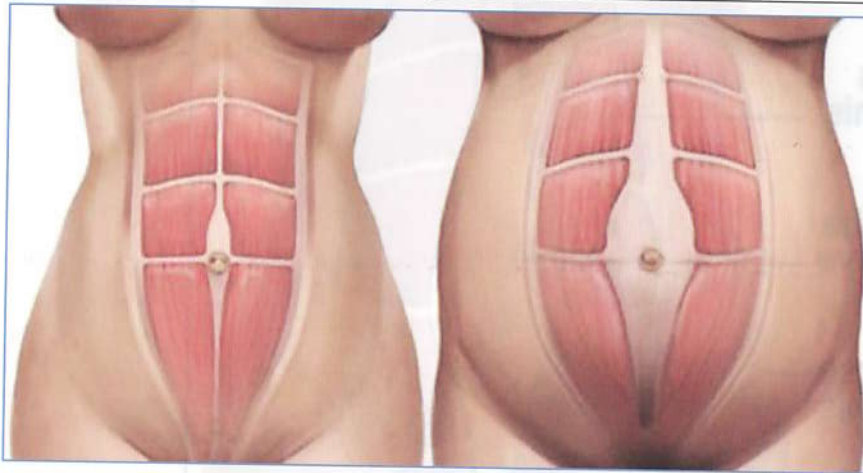
Anatomy:-

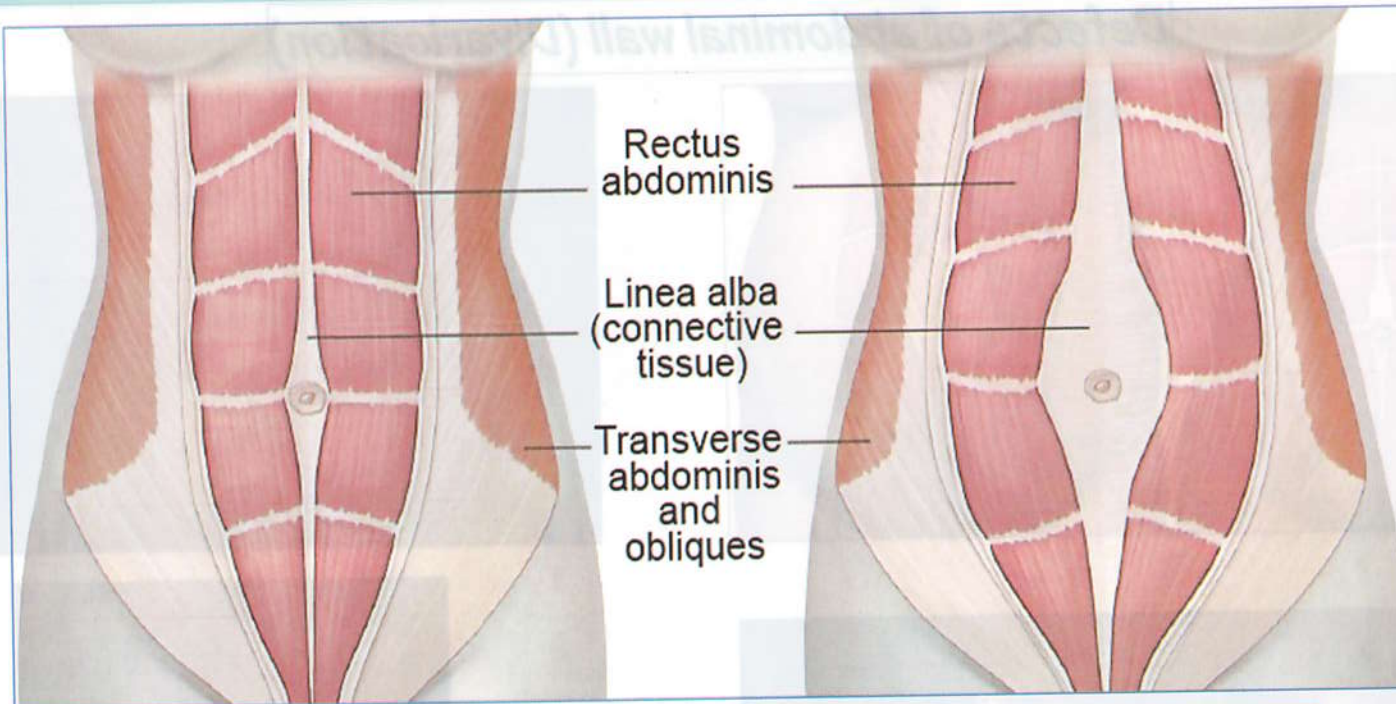
Boundary of femoral canal:-

- ✓ **Supero-anteriorly :-**
Inguinal ligament.
- ✓ **Infero-posteriorly:-**
Iliopectineal ligament
(cooper)
- ✓ **Medially:-** Lacunar ligament
(Gimbernats ligament).
- ✓ **Laterally:-** femoral vein



Defects of abdominal wall (Divarication)

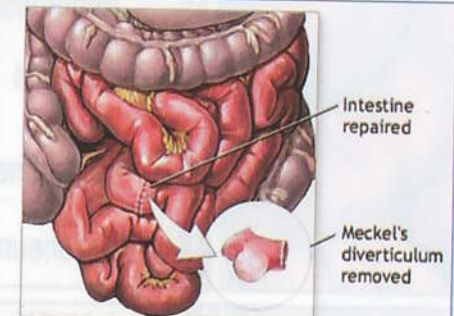
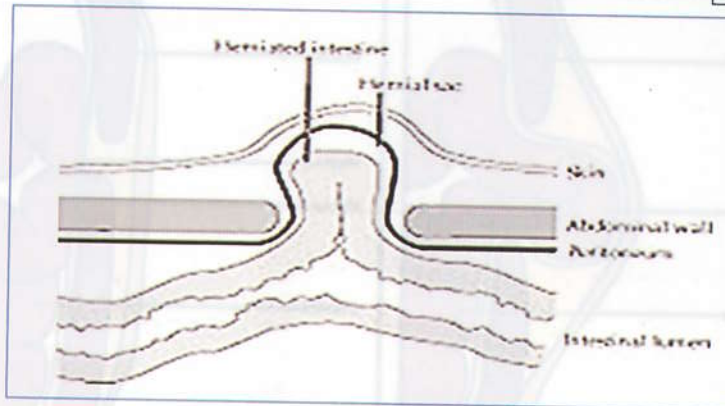




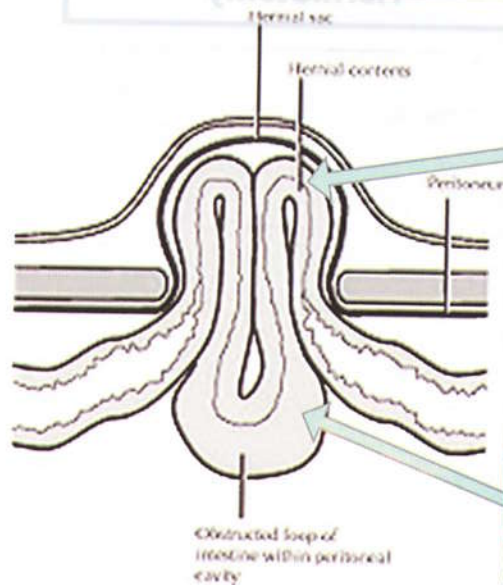
Normal abdomen

Divarication of recti

Types of hernia



Richter's hernia



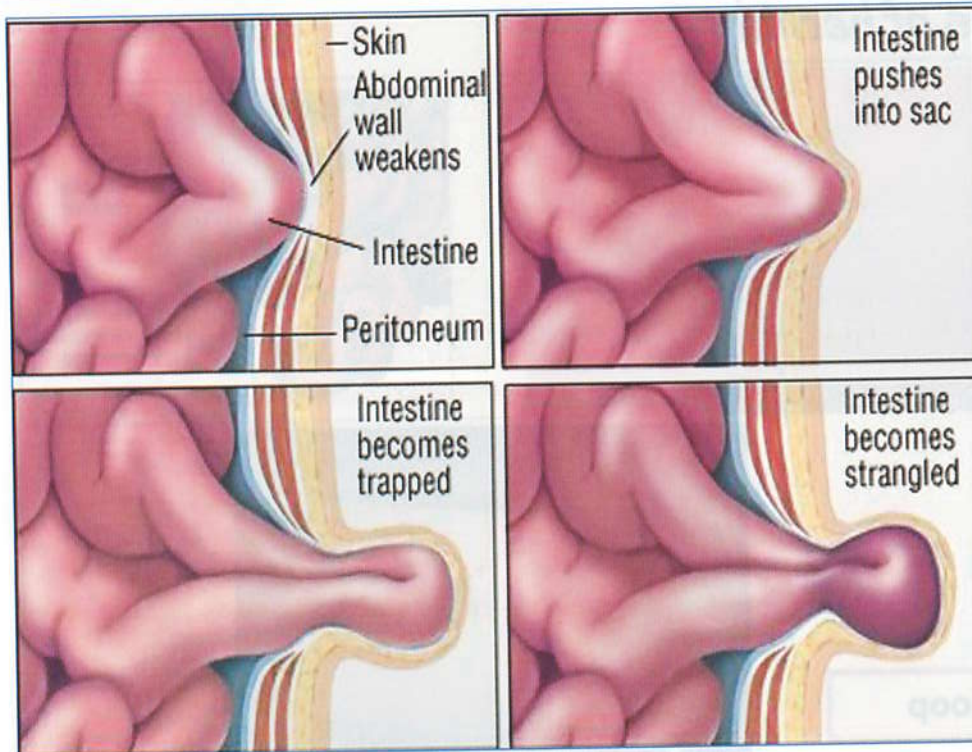
Normal loop

Necrozed loop

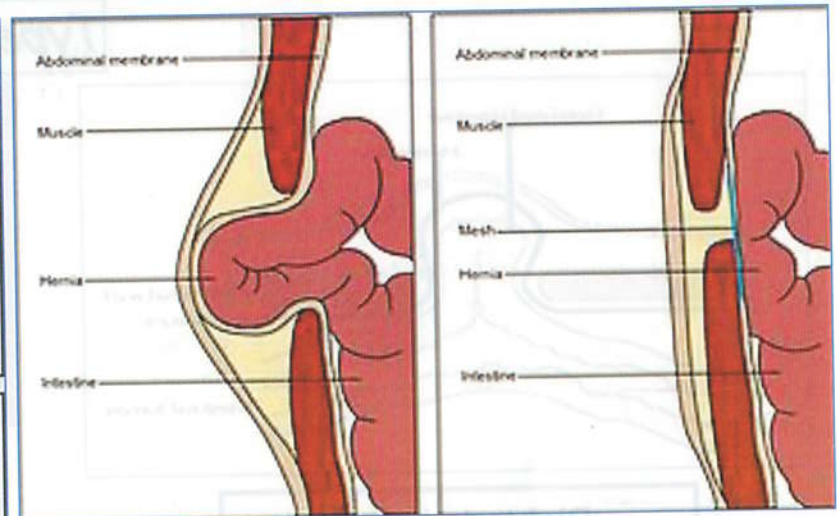


Littre's hernia

Maydl's hernia (hernia-en-w or retrograde strangulation)

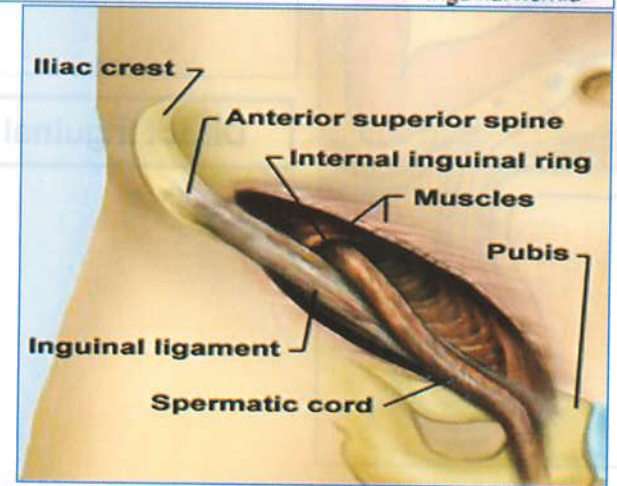
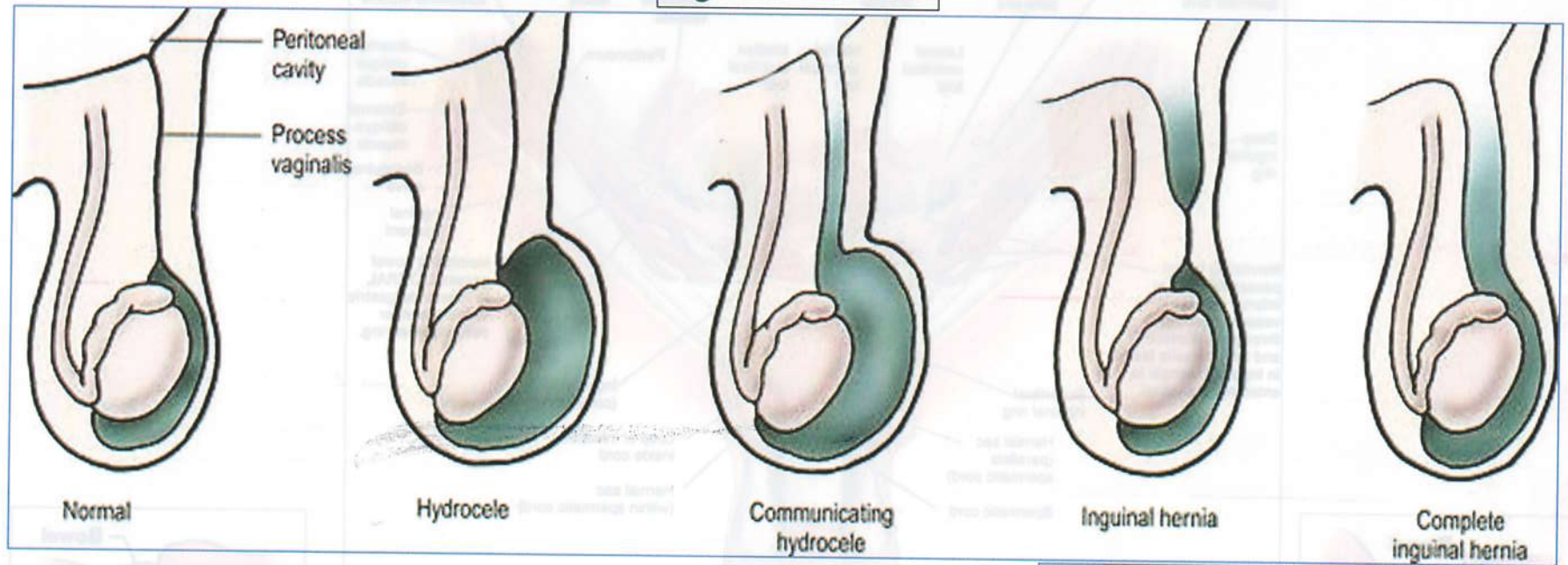


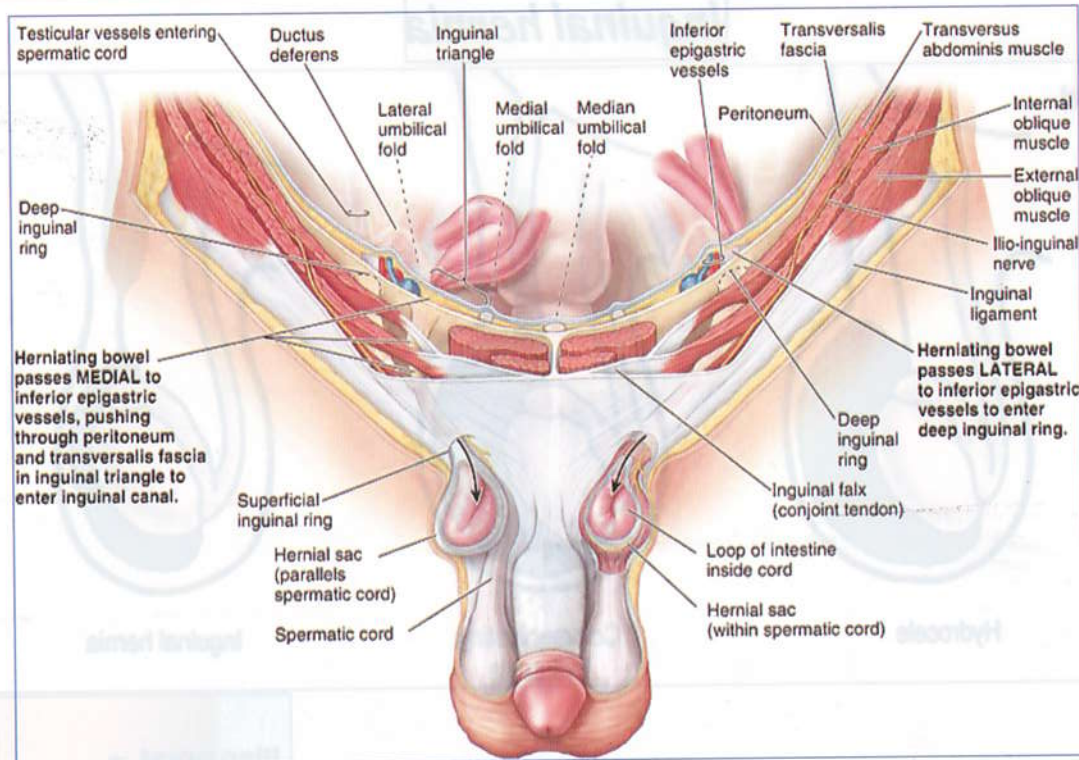
Complications of hernia



Herniotomy

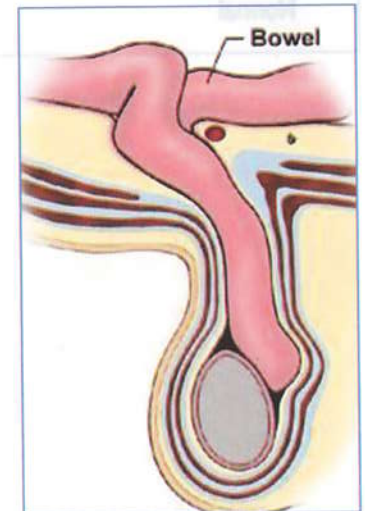
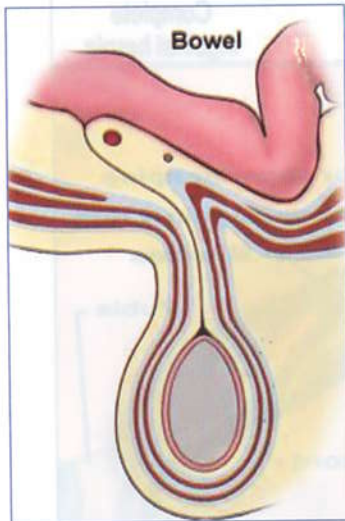
Inguinal hernia



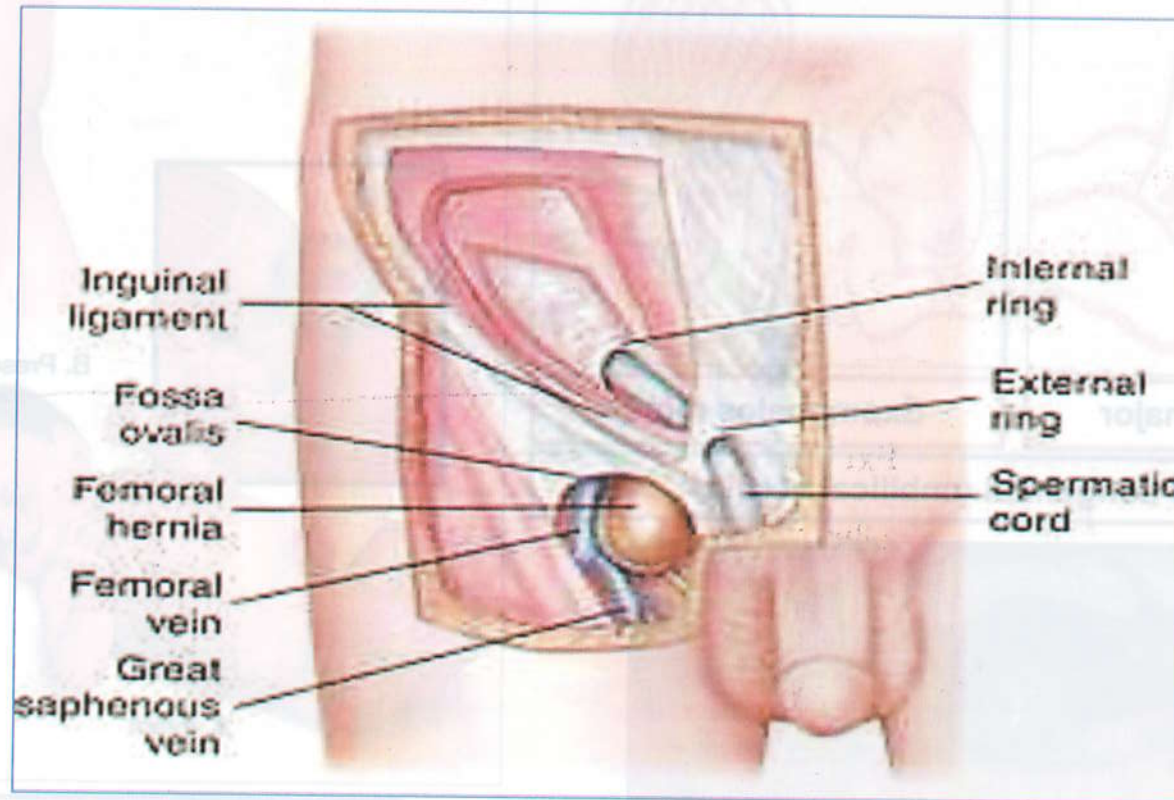


Direct inguinal hernia

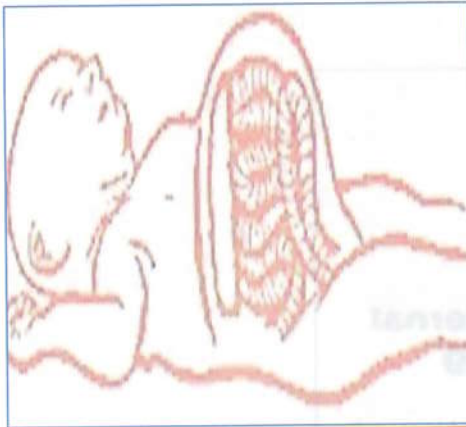
Indirect inguinal hernia



Femoral hernia



Umbilical hernia



Exomphalos major

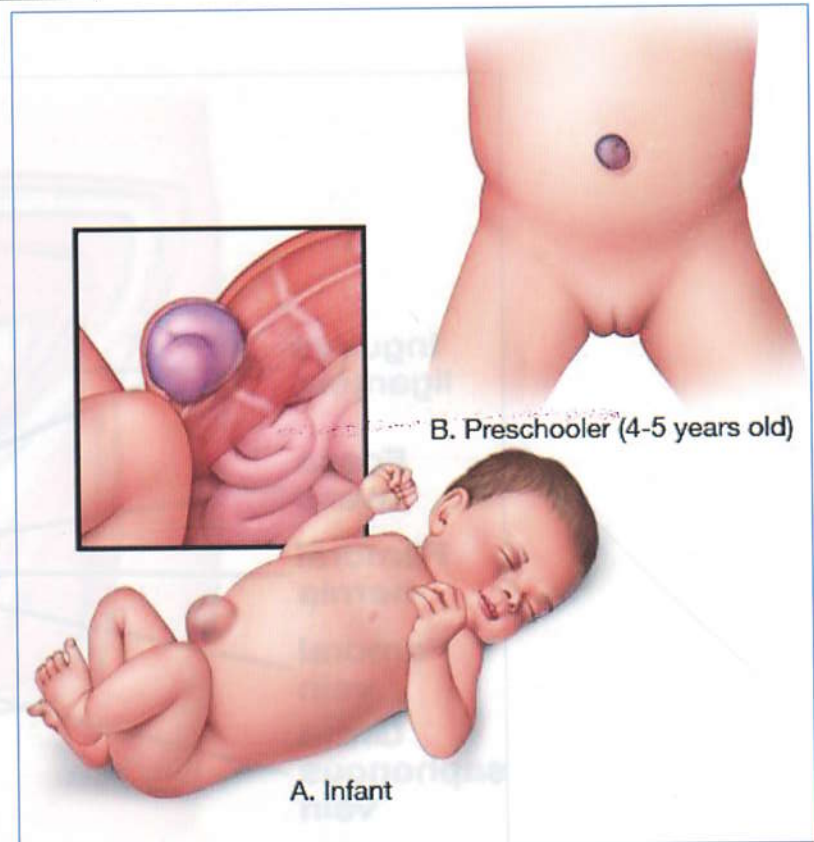


Exomphalos minor

Types of congenital umbilical hernia



Exomphalos major involving liver, bowel covered by sac

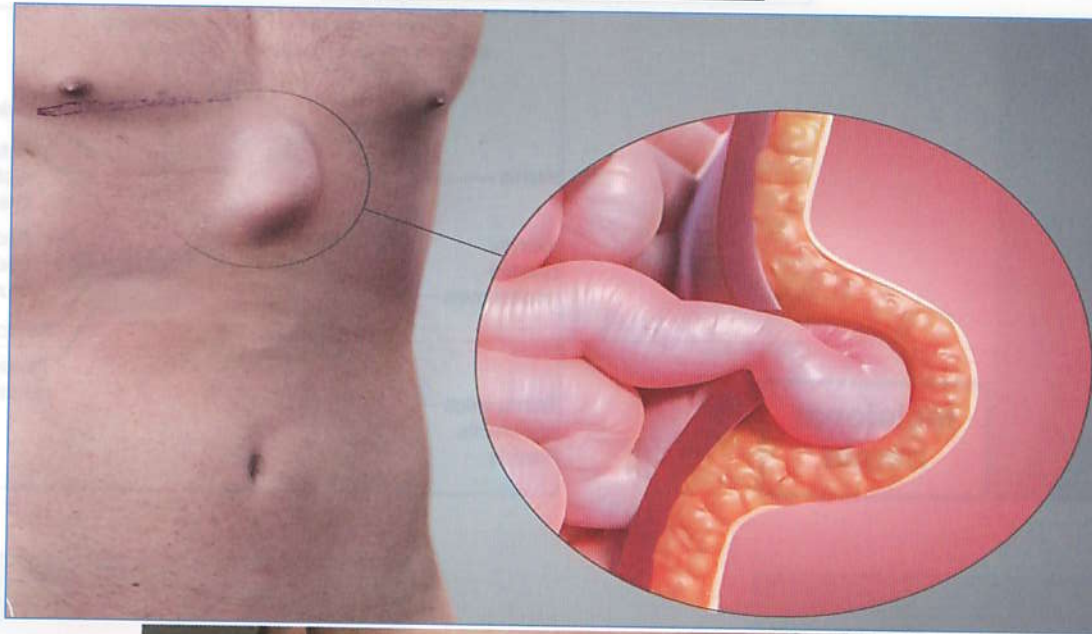


B. Preschooler (4-5 years old)

A. Infant

Infantile umbilical hernia

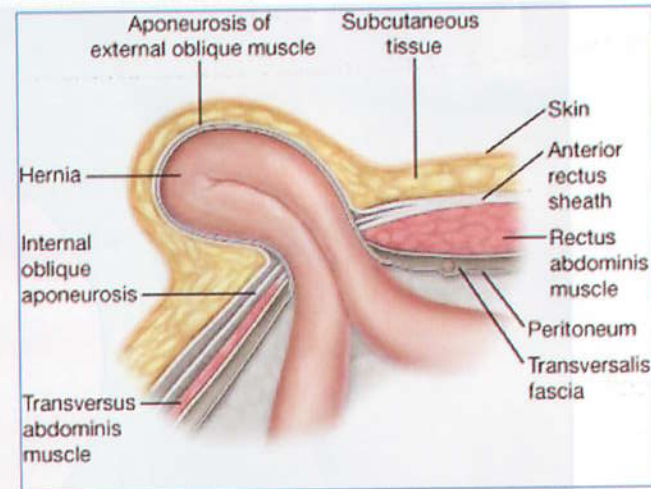
Epigastric hernia



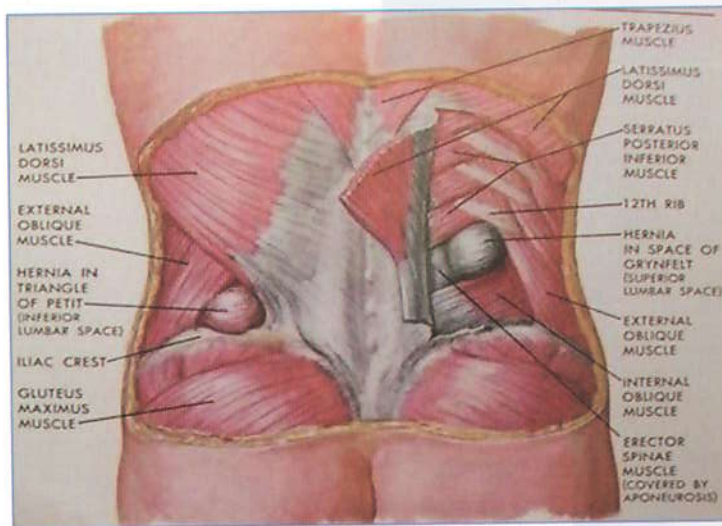
Other types of hernia



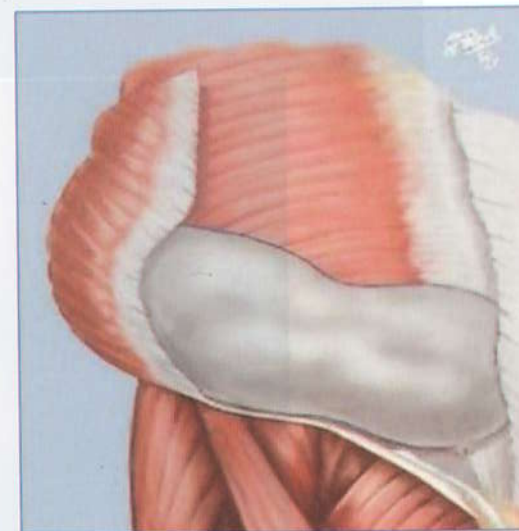
**Incisional
hernia**



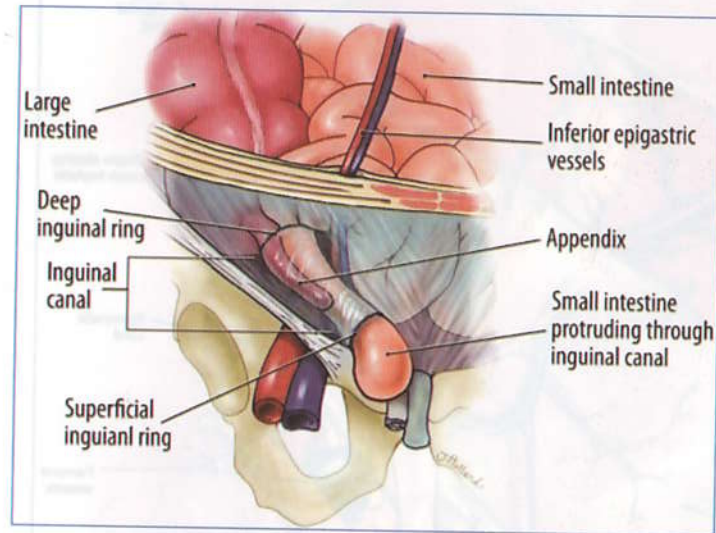
**Spigelian
hernia**



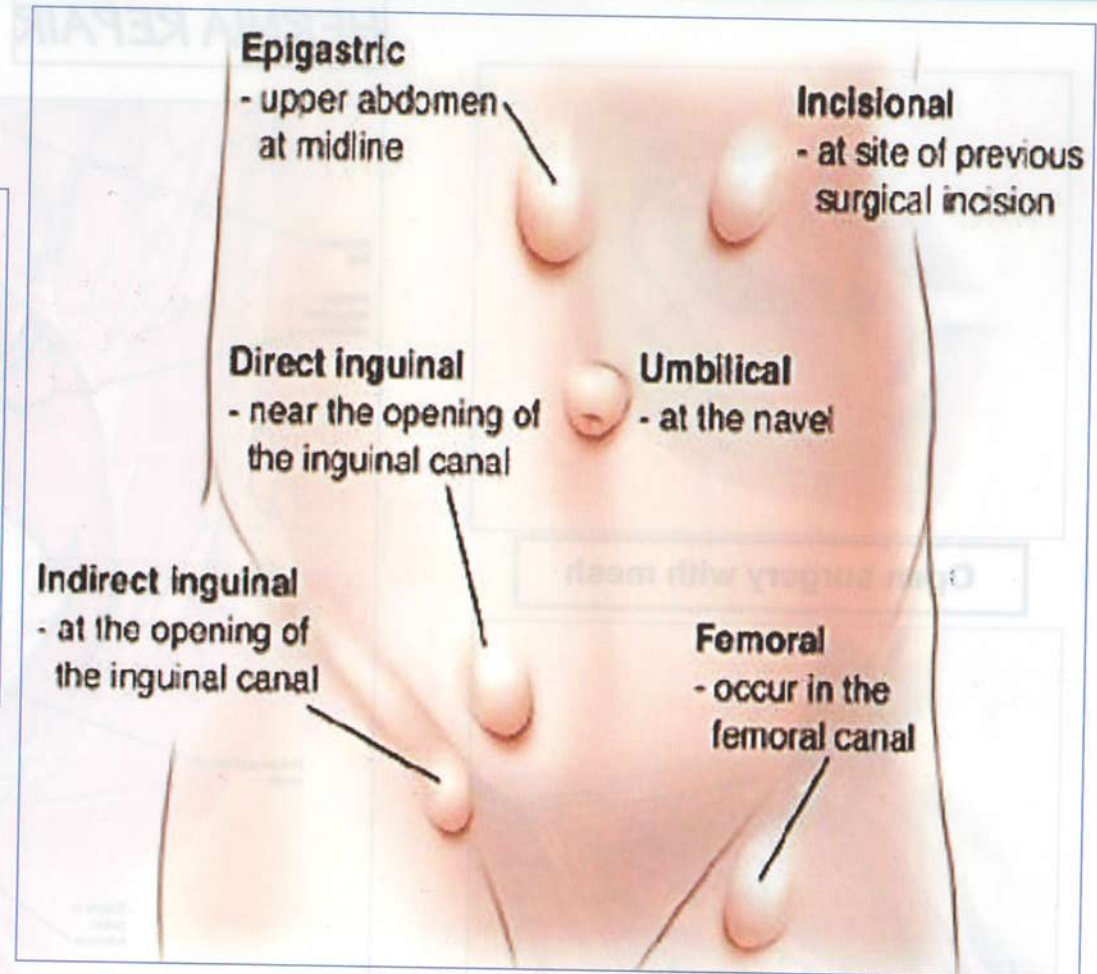
**Lumbar
hernia**



**Interstitial
hernia**

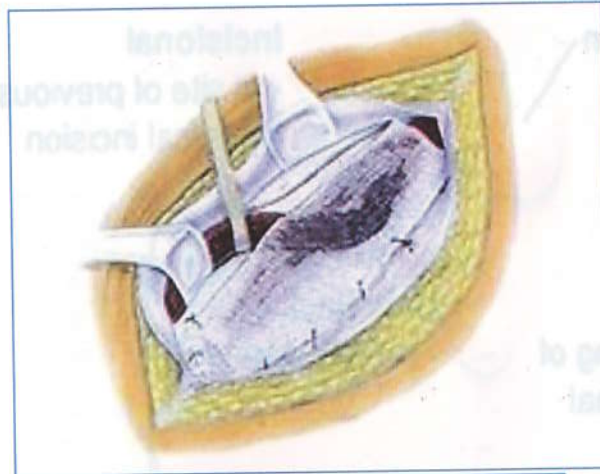


Amyand's hernia

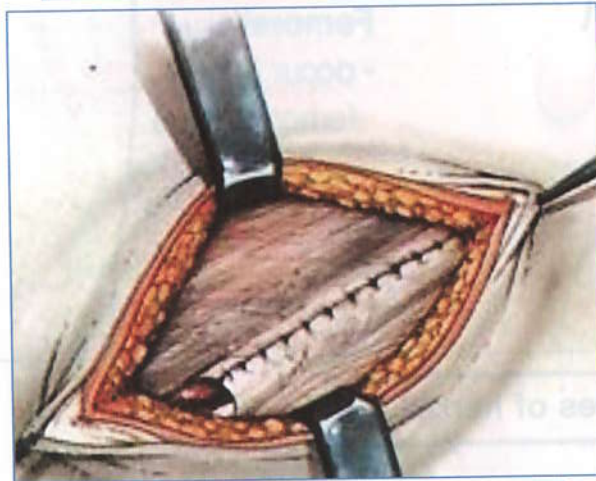


Types of hernia

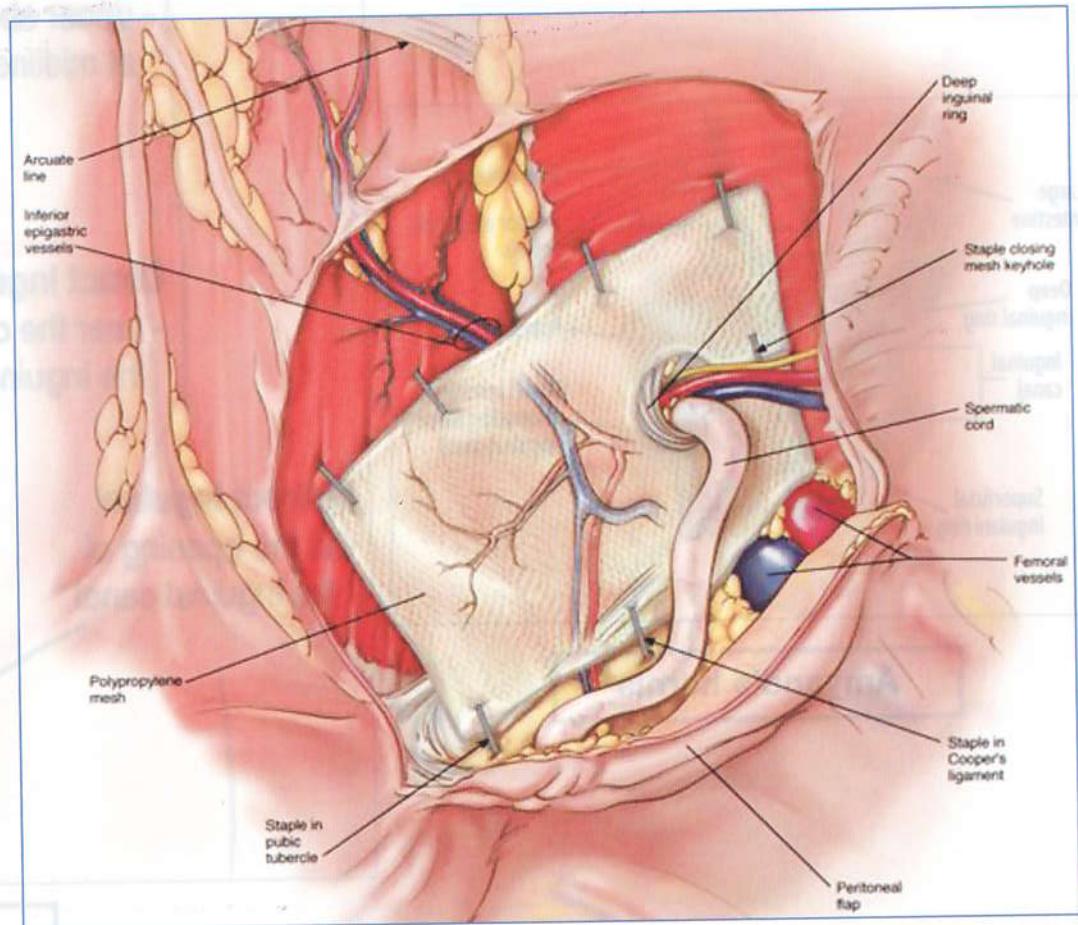
HERNIA REPAIR



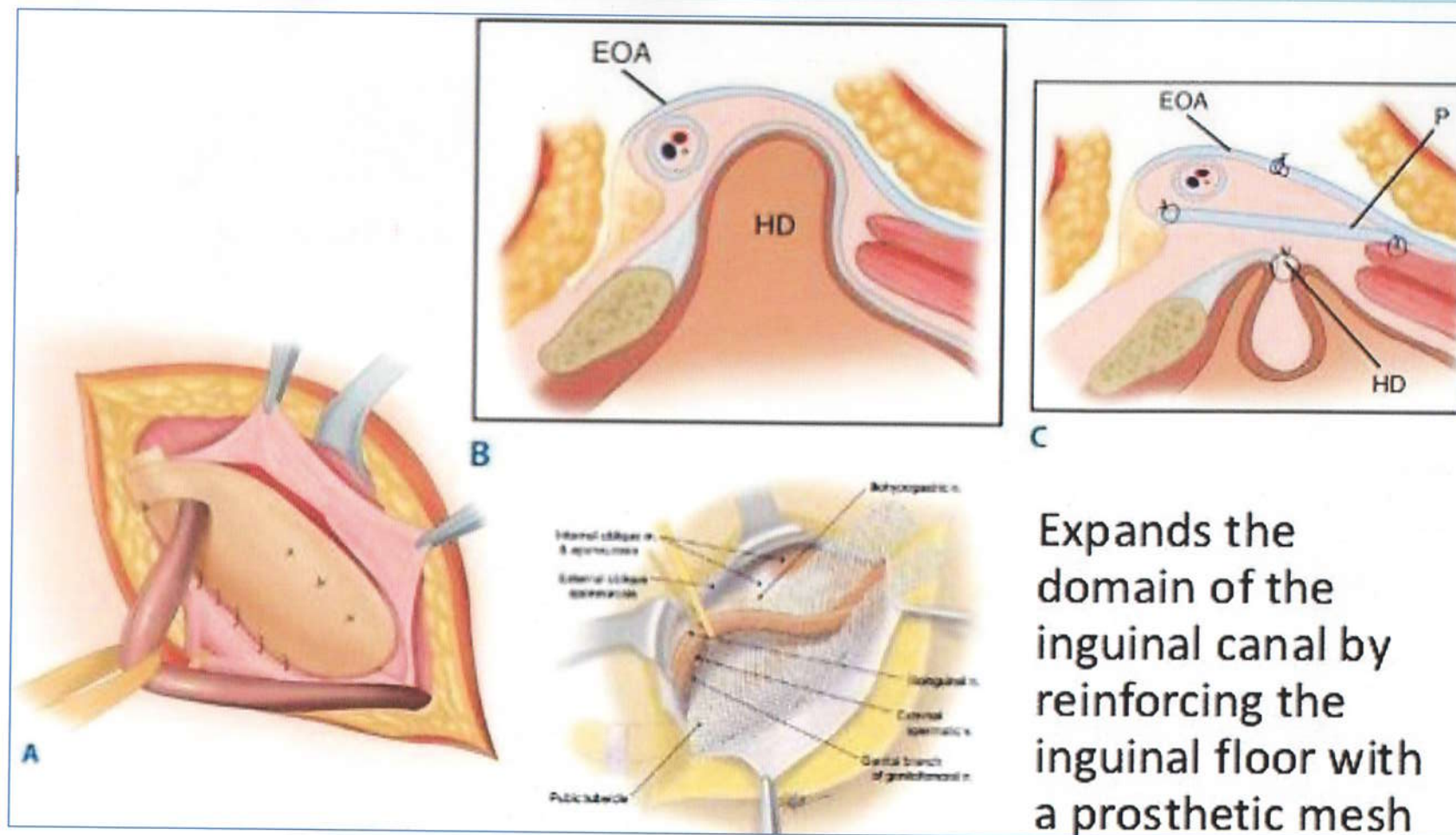
Open surgery with mesh



Open surgery without mesh



Open surgery with mesh



Expands the domain of the inguinal canal by reinforcing the inguinal floor with a prosthetic mesh

Lichtenstein tension-free hernioplasty

Other

BOOKS

By the author

CLINICAL SURGERY

SURGICAL OPERATIONS

SURGICAL INSTRUMENTS

SURGICAL RADIOLOGY

SURGICAL ANATOMY

SUMMARY

SURGICAL JARS

DIFFERENTIAL DIAGNOSIS

CASES

MULTIPLE CHOICE QUESTIONS

TRUE OR FALSE

GASTROINTESTINAL SURGERY



MATARY SURGERY